**Version 13.1.2 (released on 2022-12-22)**

**CHANGES IN THIS VERSION:**

* **Improvement:**Users may now pipe Smart Variables or field variables into the Data Entry Trigger URL.
* **Improvement:**Users may now pipe Smart Variables or field variables into the External Video URL for Descriptive Text fields.
* **Change:** PHP 8.2 is now supported in REDCap. Note: The release notes of REDCap 13.1.0 (Standard) mistakenly noted that PHP 8.2 was supported in REDCap 13.1.0, which was only partially true because PHP 8.2 was not yet supported by the External Module Framework, which is a part of REDCap.
* **Change:**REDCap no longer supports individual projects having their own authentication method that is different from the system-level authentication method. Going forward, every project will automatically assume the same authentication method of the system as defined on the "Security & Authentication" page in the Control Center. (Note: The "auth\_meth" column name in the "redcap\_projects" database table has not been removed in order to be backward compatible with any custom scripts that might be specifically querying that column in an SQL query.)
* **Improvement:** When setting up an alert, Step 2's sub-section “When to send the alert?” now contains the new drop-down choice "the day (beginning at midnight) that the alert was triggered" in the sub-option “Send the alert X days Y hours Z minutes before/after [drop-down]”. This new choice in the drop-down allows users to schedule the notification based on the day the alert was triggered and provides greater control and precision with regard to when exactly the notification will be sent. For example, if this new drop-down option is selected along with setting it to “send the alert 1 day 8 hours after…”, this will cause the notification to be scheduled to be sent at exactly 8:00am the next morning. In previous versions, it was not possible to get this level of precision for the notification send-time based upon the alert trigger-time unless you used a date field’s value as a reference. (Note: This new option is very similar to the one added for Automated Survey Invitations in REDCap 12.5.0.)
* **Improvement:** When exporting the project logging via CSV file or via API, the record name is now included as a separate column/attribute "record" in the resulting output if the logged event is record-centric (and if not, the record value will be left blank). (Ticket #132246)
* **Improvement:** The on/off switches on the Multi-Language Management setup page now have green/red coloring to more clearly denote their on/off state. (Ticket #139703)
* **Various changes and improvements for the External Module Framework:**
	+ PHP 8.2 is now supported.
	+ Added the methods $module->disableModule(), $module->isSuperUser(), and $module->escape().
	+ Added the allow-project-overrides and project-name setting options.
	+ New feature to hide external modules from non-admins in the list of enabled modules in a project.
	+ Made the scan script warn when system hooks are used.
	+ Miscellaneous scan script improvements.
	+ Fixed a bug where escaped HTML displays in field list values.
* **Change/improvement:** The Database Activity Monitor page now specifies if a specific request is an instance of the REDCap cron job.
* **Change/improvement:** When a user creates, edits, copies, or deletes a report, the logged event of this specific action now contains the list of all fields in the report. This improves the granularity of the audit trail for reports. (Ticket #139193)

**Version 13.1.1 (released on 2022-12-16)**

**CHANGES IN THIS VERSION:**

* **Improvement:** Descriptive Text fields can now have inline PDF attachments that display as an embedded PDF on the page (rather than just displaying a download link).
* **Change:** HTML tags are no longer stripped out of Project Dashboard titles as displayed in the "My Project Dashboards" list on the left-hand menu or on the Project Dashboards page. Additionally, the title of Project Dashboards are no longer limited to 150 characters.

**Version 13.1.0 (released on 2022-12-09)**

**CHANGES IN THIS VERSION:**

* **New feature: Redesign of the File Repository**
	+ **Overview:** The File Repository page has been redesigned to make it easier to store, organize, and share the files in your projects.Users now have the ability to create folders and sub-folders to help organize their files more effectively. If using Data Access Groups or user roles, users may optionally limit access to a new folder so that it is DAG-restricted and/or role-restricted. Uploading multiple files is much faster with a new drag-n-drop feature that allows for uploading dozens of files at a time. Sharing files is better too, in which users may obtain a public link to conveniently share a file with someone. New API methods also exist that allow users to upload, download, and delete files programmatically using the API. Additionally, the File Repository has a new built-in Recycle Bin folder that makes it easy to restore files that have been deleted. Users can upload as many files as they wish. There is no limit. Additionally, there is no limit to how many folders and sub-folders that can be created (or how deep that they can be nested within other folders).
	+ **Sharing:**Files can be shared via Send-It or using a public link. If you do not want users to be able to share files using the public link functionality, this may be disabled on the File Upload Settings page in the Control Center. Once disabled, users will only be able to share files using Send-It.
	+ **File storage limit:**Admins may optionally set a file storage limit that applies to all projects so that users cannot upload too many files in an abusive fashion. The value can be set in MB on the File Upload Settings page in the Control Center. There is also a project-level override for the file storage limit on the Edit Project Settings page for any given project. Note: Files in the starred folders (e.g. Data Export Files, e-Consent PDFs, Recycle Bin) do not count toward the overall file space usage of the project.
	+ **Recycle Bin:**Files that are deleted from the File Repository will be put in the Recycle Bin folder where they will be kept for up to 30 days before being permanently deleted. Any file in the Recycle Bin can be restored back to its original location (so long as doing so does not surpass the project’s file storage limit, if enabled). Administrators can “force delete” any file in the Recycle Bin, which deletes it immediately and permanently.
	+ **New API methods for the File Repository:** 1) Create a New Folder in the File Repository, 2) Export a List of Files/Folders from the File Repository, 3) Export a File from the File Repository, 4) Import a File into the File Repository, and 5) Delete a File from the File Repository.
* **Security improvement: Restricted file types for uploaded files** - At the bottom of the “Security & Authentication” page in the Control Center, administrators may now provide a list of all disallowed file types/extensions (e.g., exe) in order to prevent users from uploading files of these types into REDCap (often for security purposes). When set, this setting will be applied to all places throughout REDCap where users are allowed to upload files.
* **Improvement:**The “Alerts & Notifications” page now has its own separate user privilege. Previously, only users with “Project Design and Setup” privileges could access the Alerts & Notifications page. Now, users must explicitly be given “Alerts & Notifications” privileges in order to access the Alerts & Notifications page. Note: During the upgrade to REDCap 13.1.0 or higher, any users with "Project Design and Setup" rights will automatically be given "Alerts & Notifications" rights in order to keep continuity with their current access to the Alerts & Notifications page.
* **Improvement:**For OpenID Connect authentication, the Response Mode (response\_mode) authorization parameter can now be explicitly set in the OIDC authentication settings on the "Security & Authentication" page in the Control Center. This will allow admins to choose between "query (default)" and "form\_post" for the response\_mode OIDC setting.
* **New method for plugins/hooks/modules: REDCap::getFile** - Returns an array containing the file contents, original file name, and mime-type of a file stored in the REDCap system by providing the file's doc\_id number (the primary key from the redcap\_edocs\_metadata database table).
* **New method for plugins/hooks/modules: REDCap::addFileToField** - Attaches a file to a File Upload field for a specified record when provided with the doc\_id of an existing file from the REDCap system.
* **Improvement:**New setting added to the User Settings page in the Control Center: "Notify the REDCap admin via email when a new account is created (excluding Table-based user accounts)?" When enabled, this setting can be used to notify admins whenever new users enter the system. Table-based users are not included because their accounts are created by an administrator. (Ticket #133382)
* **Improvement:**New setting added to the User Settings page in the Control Center: "Send a "welcome" email to new users when they create a REDCap account (excluding Table-based user accounts) - i.e., when they log in the first time using an external authentication method?". The "welcome" email will consist of the following stock text: "You have successfully created an account in REDCap at [https://your-redcap-server.edu](https://your-redcap-server.edu/)/. Your REDCap username is "USERNAME". Please note that REDCap does not manage your password. If you have difficulty logging in, you should contact your local IT department. Welcome to REDCap!".
* **Improvement:**When importing User Role assignments via CSV file uploads on the User Rights page or via the API, if the project contains Data Access Groups, users can now be assigned to a DAG during the User Role assignment import process by providing an extra parameter named "data\_access\_group" with a valid unique DAG name. This will allow users to be added to the project, assigned to a role, and assigned to a DAG all at the same time. Additionally, when exporting User Role assignments via CSV file or via the API, the "data\_access\_group" attribute will be exported for each user if the project contains DAGs (to be consistent with the Import User-Role Assignment format). (Ticket #119192)
* **Change:**PHP 8.2 is now supported in REDCap.
* **Change/improvement:**When importing User Role assignments via CSV file uploads on the User Rights page or via the API, users can now be assigned to a role if they do not currently have access to the project. In previous versions, only existing project users could not be assigned to a role via CSV file or via API. (Ticket #119192)
* **Change/improvement:** When setting the designated email field on the Project Setup page or when setting the survey-level designated email field on the Survey Settings page, if the selected field is utilized in more than one event and/or is utilized on a repeating instrument or repeating event, a warning message will be displayed in a yellow box immediately below the email field drop-down to inform the user that any update to the field on any event or repeating instance will change the value of the field in ALL events and repeating instances. This should help provide more transparency to users who might get confused by the fact that the field's value gets updated in all places if the designated email field is located in more than one context in the project. (Ticket #131999)

**Version 13.0.2 (released on 2022-12-02)**

**CHANGES IN THIS VERSION:**

* **Improvement:** MLM Usage Page - A new “Usage” tab will be displayed on the Multi-Language Management page in the Control Center that will display a list of all projects using MLM and in what ways they are utilizing MLM, such as the number of languages in the project (and how many are active) and whether the following MLM options apply to the given project: Deactivated by user, Enabled by admin, Deactivated by admin, and Debug mode turned on.

**Version 13.0.1 (released on 2022-11-23)**

**CHANGES IN THIS VERSION:**

* **Improvement:**When setting up repeating Automated Survey Invitations, users can now set the repeating interval value as a number with a decimal (in previous versions, the value could only be an integer). This will allow users to approximate the interval of a monthly repeating ASI as 30.44 days since it is currently not possible for repeating ASIs to be scheduled on exactly the same day and time each month. To help users, a note has been added in the repeating survey section of the ASI setup dialog to inform them how to approximate a month as 30.44 days. (Ticket #136957)
* **Improvements for CDIS**
	+ Expiration indicator for the “Break the Glass” feature: The new Break the Glass workflow uses tokens that expire in an hour from their creation. The interface will now show if a token is expired.
	+ Delete button for the “Break the Glass” feature: Users can remove entries from the list of Break the Glass protected patients using a button.
* **Improvement:** A link to the Codebook page was added inside the Add/Edit Field dialog on the Online Designer. This will allow the user to open the Codebook in a new tab without having to close the dialog to do so. (Ticket #138300)

**Version 13.0.0 (released on 2022-11-17)**

**CHANGES IN THIS VERSION:**

* **Improvement:**New Multi-Language Management option to require admin activation of multi-language support in projects
	+ Administrators may now change the behavior of the Multi-Language Management feature so that project users cannot view or use MLM in a project until a REDCap administrator has first enabled it explicitly in that project.
	+ This behavior can be changed on the Settings tab on the Multi-Language Management page in the Control Center where it says “Require admin activation of multi-language support in projects”. Note: Enabling that system-level setting will not affect any projects where multi-language support is already enabled (either because it had previously been enabled explicitly by an admin or there is at least one language already set up).
	+ Additionally, the following new admin-only options have been added to the Settings tab on the MLM setup page in each project, in which these options only appear to admins and only when the system-level setting has been set where only admins may enable MLM:
		1. “Enable multi-language support for this project” - Allows users with Project Setup and Design rights to see the MLM menu link and to use the MLM setup page.
		2. “Disable and hide multi-language support for this project” - Turning on this option will hide the MLM menu link and prevent access to Multi-Language Management for users even when there are languages defined. This overrides the Enable option above.
* **Improvement for the External Modules Framework:** New "Developer Tools" section & "Module Security Scanning" link on the Control Center -> External Modules -> Manage page.
* **Change/improvement:** New and improved workflow and user interface for the “Break the Glass” feature when using Clinical Data Interoperability Services (CDIS) with Epic.
* **Change:** As a convenience, when deleting a conversation in REDCap Messenger, the user is no longer prompted to enter the word "delete".
* **Change/improvement:** A new check was added to the Configuration Check page to detect if the Zlib PHP extension has been installed on the REDCap web server. (Ticket #137725)
* **Change/improvement:** The path to the web server's PHP.INI configuration file is now listed at the bottom of the main Control Center page (below the date of the last REDCap upgrade). This information will be useful to help admins locate their web server's config file, which can sometimes be difficult to find.
* **Change/improvement:** On the Alerts & Notifications page, users are now able to copy deactivated alerts. In previous versions, alerts could not be copied until they were first reactivated.

**Version 12.5.17 (released on 2022-11-11)**

**CHANGES IN THIS VERSION:**

* **Change/improvement:** If the monthly User Access Dashboard reminder emails are enabled, which are used to remind project users to keep their role-based access rights up to date, the emails will now be sent only during business hours. This is intended to help increase their visibility and thus improve response rates to these reminders.
* **Change/improvement:** The "My Projects" page (and also the "Browse Projects" page in the Control Center) no longer loads the projects' count of records and fields via AJAX after the page has loaded but instead now loads the counts more efficiently in real time while rendering the page, which requires less HTTP requests.
* **Change/improvement:** If the URL for a request on the To-Do List page contains an outdated REDCap version number (i.e., the request was made prior to the latest REDCap upgrade), the URL will now be auto-updated in the To-Do List to replace the old REDCap version number in the URL with the current REDCap version number. This will prevent 404 "Not Found" errors when processing To-Do List items in the case where the previous REDCap version directories have been removed from the web server after the latest REDCap upgrade.
* **Change/improvement:** The "Export Events" API method now also returns the "event\_id" for each event. (Ticket #135602)
* **Change:** If a user cancels their own request to an admin that requests to move a project to production or to delete a project, the request no longer gets permanently deleted but gets marked as archived instead. This effectively has the same effect but preserves any comments or info associated with the original request, whereas deleting the whole request causes the comments/info to be permanently erased, which might not be ideal. (Ticket #136506)

**Version 12.5.13 (released on 2022-10-21)**

**CHANGES IN THIS VERSION:**

* **Change:**The Configuration Check page now provides a suggestion for modifying any REDCap database tables that do not have the InnoDB attribute ROW\_FORMAT set to DYNAMIC. For the greatest compatibility with future REDCap upgrades, all database tables are recommended to have Dynamic row format. If any do not, the Configuration Check page will output the necessary SQL queries for fixing these tables. Note: This is not a requirement but a suggestion to prevent possible issues with future upgrades.

**Version 12.5.11 (released on 2022-09-30)**

**CHANGES IN THIS VERSION:**

* **New feature:** Download all files on a report - When viewing a report (including public reports) that contains one or more File Upload fields or Signature fields, a “Download Files (zip)” button will appear on the page to allow users to easily download all the report’s uploaded files into a single zip file for those fields for the records in the report.
* **Improvement/change:**The project API page now displays the user's API token in a text box with a button next to it that, when clicked, copies the API token to the user's clipboard. (Ticket #134577)
* **Improvement:** Various changes and improvements for the External Module Framework, including a new module AJAX request feature (thanks to Günther Rezniczek and Mark McEver). While it has always been possible to make AJAX requests via module code, using this new framework method makes it easier and more secure. Note that for framework version 11 , logging in non-authenticated contexts must be explicitly allowed by setting the “enable-no-auth-logging” flag in “config.json”.
* **Change:** When performing a data export, the dialog now mentions more REDCap publications that might need to be cited in published manuscripts relating to the current REDCap project. Such publications would include those for MyCap, the REDCap Mobile App, the e-Consent Framework, and CDIS.
* **Change:** The Configuration Check page now suggests that the MySQL setting "max\_allowed\_packet" be increased to 128 MB or higher (preferably to 1 GB) if it is currently less than 128 MB. In previous REDCap versions, it only made this recommendation if its value was less than 16 MB, which proved to be too small for certain very large projects to function normally.

**Version 12.5.6 (released on 2022-08-19)**

**CHANGES IN THIS VERSION:**

* **New Feature: SendGrid Template Advanced Settings for Alerts & Notifications**
	+ Introduction - A new “advanced settings” section was added to the Alerts & Notifications interface when building an alert using the relatively new SendGrid Template alert type that gives users more control over the underlying SendGrid API call being made when REDCap triggers a SendGrid Template alert. Note that all of the advanced settings are optional, and they are all disabled by default. If “SendGrid Template email services for Alerts & Notifications” are enabled for a project on the Project Setup page, then these advanced settings will appear in the alert creation dialog after selecting “SendGrid Template” as the alert type. The new advanced settings are all listed in detail below.
	+ SendGrid Unsubscribe Groups - SendGrid can allow recipients of its emails to unsubscribe from all emails being sent from a sendgrid account, or from emails associated with specific unsubscribe groups in a sendgrid account. To take advantage of custom unsubscribe groups, you can create unsubscribe groups in your sendgrid account then associate them with alerts in your REDCap project. When a recipient unsubscribes from an email that has been associated with a specific unsubscribe group, they get added to that unsubscribe group's list and any future emails that are associated with that unsubscribe group will not be delivered to them. An alert can be associated with at most one unsubscribe group. Here is SendGrid's documentation on unsubscribe groups: <https://docs.sendgrid.com/ui/sending-email/unsubscribe-groups>.
	+ SendGrid Categories - SendGrid allows you to associate arbitrary categories to each email you send from your account, effectively giving you the ability to tag each individual email sent with different metadata about the email like the email type. Unlike unsubscribe groups, categories don't have to be made in your sendgrid account before associating them with an alert in REDCap. You can define your categories in REDCap as you create your REDCap alert, and your sendgrid account will automatically detect new categories as emails get sent with them. In your SendGrid account's Category Stats page, you'll be able to see data about your emails by category. You can associate up to 10 unique categories per email, and a category name cannot be longer than 255 characters.
	+ SendGrid Mail Settings - Full documentation for the SendGrid bypass settings can be found at <https://docs.sendgrid.com/ui/sending-email/index-suppressions#bypass-suppressions>.
		1. Bypass List Management- When enabled, your email will be delivered regardless of any other existing suppression management control in your account. For example, if a recipient is in an unsubscribe group or the global unsubscribe group, they will still receive the email if bypass list management is enabled. Bypass List Management can't be combined with any other bypass option.
		2. Bypass Spam Management - Allows you to bypass the spam report list to ensure that the email is delivered to recipients. Some email services allow recipients to mark emails as spam. In some cases, sendgrid will be notified when a recipient marks an email as spam and will maintain a spam report list.
		3. Bypass Bounce Management - Allows you to bypass the bounce list to ensure that the email is delivered to recipients. A bounce occurs when a receiving mail server rejects an incoming email. This can happen if the recipient address is bad, for example. If sendgrid sees too many bounces happening, it will add that recipient to a bounce list and it will stop trying to send mail to that recipient. Enabling this will bypass that bounce list and force sendgrid to retry delivery.
		4. Bypass Global Unsubscribe Management - When enabled, your email will be delivered even if the recipient is on your account's global unsubscribe list.
		5. Sandbox Mode - Sandbox mode lets you check for errors in the SendGrid API call used to send an email without the potential of delivering the email. If you're unsure about your sendgrid configuration, you can run a test by enabling sandbox mode for an alert and triggering it. If your project's logs state that the alert was sent successfully and you don't see any errors, then your configuration is good to go. However, since sandbox mode was enabled for that alert, an email was not actually sent. After you're satisfied with your tests, you can disable sandbox mode and start sending real emails with your alert.
	+ SendGrid Tracking Settings
		1. Click Tracking - SendGrid has the ability to detect when a recipient clicks on links in an email. The count of clicks for a given email can be seen in the email activity section of your sendgrid account.
		2. Open Tracking - SendGrid has the ability to detect when a recipient opens an email by embedding a single pixel image in an email. Enabling this setting will make sendgrid include this tracking pixel in your emails. You can view the count of opens for a specific email in the email activity section of your sendgrid account.
		3. Subscription Tracking - If subscription tracking is enabled and configured on your sendgrid account, this setting lets you choose whether or not you want to include the global unsubscribe link associated with the subscription tracking feature in your emails. Note that you can utilize unsubscribe groups without using the more general subscription tracking feature. I believe subscription tracking is disabled by default on a sendgrid account. Here is some documentation from sendgrid about unsubscribe methods: <https://support.sendgrid.com/hc/en-us/articles/1260806604209-Unsubscribe-Methods>
	+ Miscellaneous Additions
		1. Added an External Service Check for <https://api.sendgrid.com/v3> in the Control Center's Configuration Check page.
		2. Added a line in the Modules utilized section of the Systems Statistics page to keep track of how many non-practice projects are utilizing sendgrid for Alerts & Notifications.
	+ Additional SendGrid API Token Requirements - To fully support SendGrid Advanced Settings, the SendGrid API token used in the project's setup needs the permission for getting an account's unsubscribe groups through the API. This permission is mapped to the asm.groups.read scope. You can add this permission to your existing API token by editing its permissions in your SendGrid account and giving it Read Access to Unsubscribe Groups in the Suppression section.
* **Improvement:** When utilizing Multi-Language Management in a project, the Field Finder on the Codebook page now supports searching in translated field labels.
* **Improvement:**The date of the most recent REDCap upgrade for the system is now displayed near the bottom of the main Control Center page. (Ticket #69036)
* **Improvement:** "Project 5 (COVID-19)" was added as a new classification that is selectable under the NIH CDE Repository catalog for the Field Bank feature in the Online Designer. Project 5 (COVID-19) is a classification of NIH-Endorsed CDEs (Common Data Elements).

**Version 12.5.5 (released on 2022-08-05)**

**CHANGES IN THIS VERSION:**

* **Improvement:**Admins can now provide an alternate URL that will be used for the "Contact REDCap Administrator" links on each project's left-hand menu. If admins are using a ticket system, for example, to collect questions/issues from users, they may enter the URL of the ticket system's page where new tickets can be submitted. The alternate URL can be entered on the General Configuration page of the Control Center. If left blank (its default value), the "Contact REDCap Administrator" links will function as they have in previous versions, in which clicking them will open a pre-formatted email in the user's native email client.
* **Improvement:**The Duo two-factor authentication process has been upgraded to use the new Duo Universal Prompt. This will provide a better and more reliable user experience for those institutions using Duo for two-factor authentication in REDCap. (Ticket #130859)
* **Improvement:**Two more fields (general\_practitioner and managing\_organization) were added to the Patient FHIR resource when using the Clinical Data Mart service for CDIS.

**Version 12.5.1 (released on 2022-07-08)**

**CHANGES IN THIS VERSION:**

* **Improvement:**When using the Multi-Language Management in a project where the languages created on the MLM setup page have Language IDs that correspond to language ISO codes, if a user or participant has not yet selected their display language via the MLM language-switching choices, REDCap will use their current browser settings to auto-detect and then auto-select their preferred display language. This is meant to be an added convenience to the user/participant. Note: This only occurs if project users have set up their MLM Language IDs as ISO codes.
* **Improvement/change:** Updated the Font Awesome library from v5.15.4 to v6.1.1.
* **Improvement:** Stop Actions (for multiple choice fields) and Video Display Format settings (for Descriptive Text fields with videos) are now included in Instrument Zip files when downloading or uploading them for an instrument in the Online Designer. In previous versions, stop actions were not included, and while the video URL was included, the setting that defines if the video is displayed inline or not was not included. (Ticket #124377)

**Version 12.5.0 (released on 2022-07-01)**

**CHANGES IN THIS VERSION:**

* **New feature: Repeating Automated Survey Invitations (ASIs)**
	+ Users can now set ASIs to send multiple times on a recurring basis for any repeating survey in a project. If the survey is a repeating instrument or if it exists on a repeating event, then users will see a new section "How many times to send it" in the ASI setup popup in the Online Designer. There users may set the ASI to send survey invitations repeatedly at a regular interval, in which it can repeat forever or a set number of times. This new repeating ASI feature works similarly to how recurring alerts have always worked for Alerts & Notifications.
	+ Note: If an instrument is not a repeating survey, then this new section will not appear for that survey in the ASI setup dialog.
	+ When an ASI is set up to recur for a repeating survey, the [survey-link] Smart Variable in the invitation text will always point to a different repeating instance of the survey for each time the invitation is sent. For example, if the ASI is set to recur daily, then the first day’s invitation will have a link pointing to instance #1 of the survey, the next day’s invitation will point to instance #2, then the next to #3, and so on.
* **New Smart Variable: [new-instance]**
	+ This new Smart Variable [new-instance] can be appended to [survey-link], [survey-url], [form-link], and [form-url] to create a URL that points to a new, not-yet-created repeating instance for the current record. In this way, [new-instance] functions essentially as [last-instance] 1. This new Smart Variable works for repeating instruments and also for instruments on repeating events.
	+ [new-instance] can also be used as stand-alone, in which it will return an integer. But it will only work when used within the context of a repeating instrument or repeating event, in which it will essentially return [last-instance] 1 for the current repeating context.
	+ [new-instance] will auto-append “&new” to the end of the form link or survey link (when used with [form-link/url] or [survey-link/url]) and thus will cause the user/participant to be redirected to the next repeating instance if the current repeating instance (i.e., the instance number in the URL) already exists for the record. Thus, using [form-link] or [survey-link] appended with [new-instance] will ensure that you always end up on a new, not-yet-created instance. And if two participants arrive at the same repeating survey instance with both using the exact same link created by [survey-link][new-instance], then the second participant to submit the survey page will not override the first participant’s response. Instead, it will add the second participant’s response as another repeating instance that does not exist yet.
	+ TIP: One of the main intended usages of [new-instance] is to utilize it as [survey-link:instrument][new-instance] inside the text of a recurring alert to allow users/participants to enter data easily into a repeating survey. In this way, it works very similarly to a repeating ASI. However, repeating ASIs do not need their survey link appended with [new-instance] because it is already implied from the ASI setup.
* **New feature: Embedding images in text & emails**
	+ Users may now embed one or more inline images into the text of a survey invitation, an alert, or a field label on a form/survey, among other things, by clicking the image icon in the rich text editor and then by uploading an image from their local device. Anywhere that the rich text editor is used, users may embed an image into its text (with one exception: the @RICHTEXT action tag on public surveys).
	+ If you wish to disable the ability to embed images in text via the rich text editor, you may disable this functionality at the system level on the Modules/Services Configuration page in the Control Center.
* **New method for plugins/hooks/modules: REDCap::storeFile** - Stores a file in REDCap when provided with the full path of a file on the local REDCap web server. Returns the doc\_id from the redcap\_edocs\_metadata database table for the stored file. The file will be automatically stored using the defined file storage method in the system (e.g., WebDAV, S3, local). Note: The original file on the server will \*not\* be deleted by this process.
* **New method for plugins/hooks/modules: REDCap::copyFile** - Creates a new file in REDCap by copying a file already stored in the system when provided with the doc\_id of the original file from the redcap\_edocs\_metadata database table in the REDCap system. Returns the doc\_id for the newly created file. The new file will be automatically stored using the defined file storage method in the system (e.g., WebDAV, S3, local). Note: The original file whose doc\_id is provided as a parameter will \*not\* be deleted by this process.
* **New method for plugins/hooks/modules: REDCap::addFileToRepository** - Adds a file to a project's File Repository when provided with the doc\_id of an existing file from the REDCap system. Warning: This method should not be used for files already stored for File Upload fields or as various attachments in the system because deleting the file from the File Repository will delete it in all places where the file is utilized. Ideally, this method is meant to be paired with the method REDCap::storeFile(). If you wish to add a file to the File Repository that is already being utilized elsewhere in REDCap (e.g., as an attachment or uploaded to a File Upload field), it is recommended that you first call REDCap::copyFile() to copy the original file, and then call REDCap::addFileToRepository() afterward.
* **Improvement:** When setting up an ASI, the sub-section “When to send invitations AFTER conditions are met” now contains the new drop-down choice "the same day (beginning at midnight) that the automated invitation was triggered" in the sub-option “Send the invitation X days Y hours Z minutes before/after [drop-down]”. This new choice in the drop-down allows users to schedule the invitation based on the day the ASI was triggered and provides greater control and precision with regard to when exactly the invitation will be sent. For example, if this new drop-down option is selected along with setting it to “send the invitation 1 day 8 hours after…”, this will cause the invitation to be scheduled to be sent at exactly 8:00am the next morning. In previous versions, it was not possible to get this level of precision for the invitation send-time based upon ASI trigger-time unless you used a date field’s value as a reference.
* **Change/improvement:** When setting up an Automated Survey Invitation, the setting to make the ASI “Active” or “Not Active” has been moved to the top right of the ASI setup dialog.
* **Various fixes and changes for the External Module Framework, including**…
	+ Prevented return value warnings on external module hooks that shouldn't return values.
	+ Added tags to improve Psalm scanning.