

# Email Alerts Documentation

Email Alerts V2.1.2

By Eva Bascompte

# Configure Email Alerts (only admins)

Before configuring the email alerts, make sure a sender has been designated. While not mandatory, it is recommended to add one sender in the Control Center configuration. This sender is added by the administrator, and will be the default sender when a new alert is created.

To see the option, go to the **External Modules – Module Manager**, once the module is activated, and click on *Configure*.

## Modules Currently Available on this System

### Email Alerts - v1.0

Allows users to construct and send customized email alerts to one or more recipients, in which the emails are triggered when a form/survey is completed and optionally based on conditional logic. The user interface enables customized options such as rich text, data piping, and file attachments.  
by Eva Bascompte Moragas (Vanderbilt University Medical Center)

[Configure](#)[Disable](#)[View Usage](#)

## Configure Module:

### Email Alerts - v1.0

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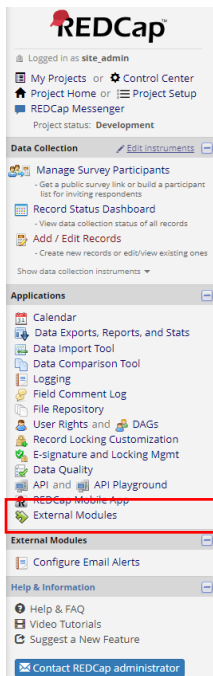
## System Settings for All Projects

## Project Override Permission Level

Enable on all projects by default:

☐

Sender Email Address:

[Cancel](#)[Save](#)

Once the Email Alerts module is activated, a **Configure Email Alerts** link will appear in the left hand tool bar. This is where creation and management of the emails are done.

*Note: once the admin enables the module all users will see the link.*

# Creating a New Alert

The configuration table is a dropdown table that has several options available for users to customize before creating a new Email Alert.

Option	Field Mappings
Email Addresses	
Email Content	
Email Errors	

Save Settings

There are three sections:

1. Email Addresses
2. Email Content
3. Email Errors

## • Email Addresses

Email Addresses are where the options related to the sender are found. Some of them enable buttons to use during the creation of a new email.

*Note: If a variable is not predefined in the top configuration “piping” will not work.*

*Note: the format is one variable per line.*

*Note: Button Name is the associated label name, chosen by the user, which the button will display in the Email Content section.*

**Data Piping:** Allows email fields from the REDCap form(s) to be piped into the TO and CC fields of email messages. Format must be [variable\_name], Button Name

**Preload Addresses:** Enables autocomplete of email addresses in the TO and CC email fields. The list of email addresses is pulled from the specified variables in an already existing REDCap records. Format must be [email\_variable], [email\_variable\_2], .....

**Sender Email Name:** Allows the user to set a default custom sender name for the email alerts. This only affects the sender name, not the sender email address, that will appear in the alert.

## • Email Content

Email Content is where all the options related to the content of the email are located. These options enable buttons to use during the creation of a new email.

*Note: If a variable is not predefined in the top configuration “piping” will not work.*

*Note: the format is one variable per line.*

*Note: Button Name is the associated label name, chosen by the user, that the button will display in the Email Content section.*

**Data Piping:** Allows data from the REDCap form(s) to be piped into the email messages. Project variables must be mapped to labels to ensure proper piping. Enter one mapping per line. Format must be [variable], Button Name.

**Survey Links:** Allows enabled REDCap surveys to be inserted into email messages.

The easy way to add a survey is to select the Add Link button. Once in this window, define the instrument/survey and create a label for the content button. You can also directly type in the data as long as you follow this format: `[__SURVEYLINK_form_name]`

*Note: Survey Links have to be enabled as Save and Return in Survey Setting to use this option, otherwise it will show an error message. It is recommended to enable Save and Return before adding it on the configuration otherwise it won't recognize it until the page is refreshed.*

### Add a survey link

×

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Once the survey link is added, remember to click on **Save Settings** button to save the changes.

Form name:

Label:

---

Close Add survey link

**Data-Form Links:** Allows data forms to be inserted into email messages.

The easy way to add a survey is to select the Add Link button. Once in this window, define the data-form and create a label for the content button. You can also directly type in the data as long as you follow this format: `[__FORMLINK_form_name]`

### Add a data-form link

×

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Once the data-form link is added, remember to click on **Save Settings** button to save the changes.

Form name:

Label:

---

Close Add data-form link

- Email Errors

Email Errors is where specific emails recipients are designated in case an error is generated.

**Failed Email Alerts:** Type in the specific email address that need to see any generated email error.

# Add New Email

Add New Email

When clicking on the *Add New Email Button* a window will open to create a new email alert.

There are four sections:

1. Email Triggers
2. Email Content
3. Email Attachments
4. Email Schedule

## • Email Triggers

Here conditions are set to send email.

**REDCap Instrument:** Drop down to select the instrument/form that will activate the email alert when this one is completed.

**REDCap Instrument Event:** For instrument used in a longitudinal study, a new selector will appear containing a list of events.

REDCap Instrument:	<div>my_first_instrument ▼</div>
* must provide value	
REDCap Instrument Event:	<div>▼</div>
Email Condition (REDCap logic):	<div>Event 1 Event 2</div>

*Note: If you activate the project as longitudinal after creating the alert, you will have to update this field on the alerts.*

**Email Condition (REDCap logic):** Enables the option to add logic for a specific email.




*For example:  $[name\_var] = 1$  will only send the alert when the variable equals 1.*

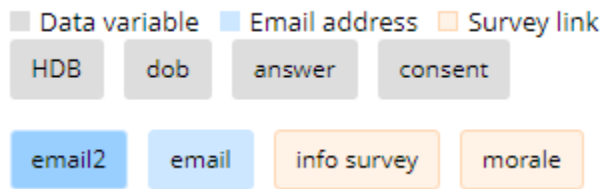
*You can configure this so that only one or both of the triggers need to be met.*

**Send emails for any Form status?:** When checked an email will be sent for any form status. If this option is not checked, the email will only send when the form is marked complete.

- Email Content

Email content is where information pertinent to the email is added. This is also where the buttons from the email alert configuration will appear-

-  Data Piping (Email Addresses)
-  Data Piping (Email Content)
-  Survey Links (Email Content)



*\*An Example on how the buttons will appear*

**Email From:** The sender address and sender name. By default will appear with the value from Control Center configuration if any has been added.

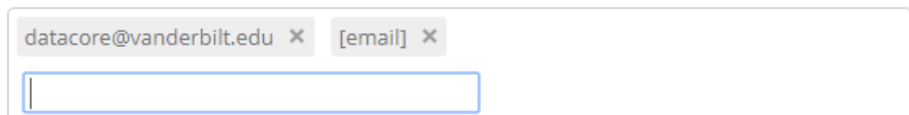
*Note: The sender name can be left blank but not the address. (noreply@vanderbilt.edu, "NAME/BLANK")*

**Email To:** The email address of the receiver. If variables have been added to data piping from the Email Addresses configuration, blue buttons will appear, meaning those can be used to set the to field.

*Note: The variables can also be typed but will ONLY work if they have been defined in the above configuration.*

*Note: Predefined Emails and REDCap variables can also be added in same alert.*

Email To:



The input field contains two tags: 'datacore@vanderbilt.edu' and '[email]', each with a close button (X). Below the tags is a text input area.

**Email CC:** The email address/es to send as a Carbon Copy to the receiver. See **Email To** for functionality.

**Email BCC:** The email address/es to send as a Blind Carbon Copy to the receiver. See **Email To** for functionality.

**Subject:** The subject of the email. Data variables buttons can be used in this section.

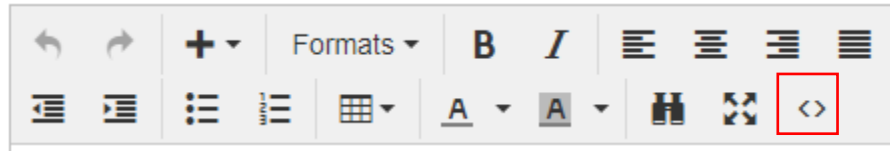
Subject:



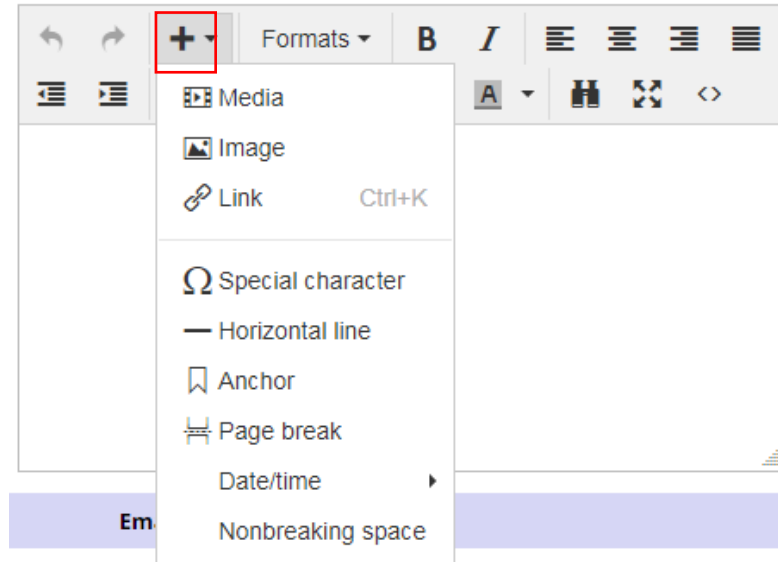
The input field contains the text 'Is [answer] correct?'.

**Message:** The body of the email.

- To add HTML code click on the '<>' button



- To add images click on the '+' button



## • Email Attachments

Email Attachments is where files can be added to the email and the resend option can be activated.

**REDCap file variables:** If there are one or more variables in REDCap that are files, by adding the REDCap name in this field, they will be sent as attachments in the email.

**Email Attachment (1-5):** Up to 5 files can be attached from the user's computer.

**Resend Emails on Form Re-Save?** On activating this option, the email will be sent EVERY TIME the form has been completed. If this option is not checked, it will only be sent the first time the conditions are met.



## • Email Schedule

Email Schedule is where emails can be scheduled depending on certain conditions.

*Note: Only users that have “User Rights” privileges enabled will be able to set up scheduled emails. Regular users won’t see this option but will be able to check the data on the **Scheduled for** column from the alerts table.*

**Send email on:** It specifies when the email is going to be sent. There are three options:

1. **Now:** Is the option by default and sends the email right away.
2. **Date:** Sends the email on a specific date. When selected a new field will appear to add the date.

Send email on: ☐ Now ☒ Date ☐ Conditional

Inset value:

*Note: The date format is YYYY-MM-DD.*

*Note: The email will be sent on the date specified.*

3. **Conditional:** Send the email under a specific condition. When selected a new field will appear to add the condition.

Send email on: ☐ Now ☐ Date ☒ Conditional

Inset value:

*Note: Emails will be queued and only sent once the condition is met.*

**Email expires on:** It specifies when the email is going to expire. There are three options:

1. **Never:** This is the default value. The email will never expire if it’s repeatable. If it’s not it will expire once sent.

2. **Date:** Deletes the email on a specific date. When selected a new field will appear to add the date.

Email expires on: ☐ Never ☒ Date ☐ Conditional

Insert value:

YYYY-MM-DD



*Note: The date format is YYYY-MM-DD.*

*Note: The email will be deleted on the date specified.*

3. **Conditional:** Deletes the email under a specific condition. When selected a new field will appear to add the condition.

Email expires on: ☐ Never ☐ Date ☒ Conditional

Insert value:

*Note: Emails will be deleted once the condition is met.*

**Repeat every # of days:** Number that indicated how many days the email should again be sent.

*Note: The **Repeat every # of days field** by default will be 0, meaning the alert will not repeat and will be removed from the queue after initially sent. If any other number is entered the alert will repeat and continue to send every # days until the email expire logic is true.*

*Note: **Resend Emails on Form Re-save** option can't be activated in scheduled emails. If clicked, the Email Schedule section will disappear.*

*Note: If editing the schedule section of an alert a new option will appear:*

Select this if *Send email on*  
parameters

have changed and you would like ☐  
to update the queue

This option has to be selected if any changes have been made on the Send email on option and those changes have to be reflected on the queues

# Deleted Alerts (admins only)

Admins will see a new checkbox in the alerts table: ☒ Deleted (user)

When checked, admins will be able to see all alerts deleted by any user.

Add New Email

☒ Deleted (user) ☒ Active only

Show 50 entries

Search:

Form	Scheduled for	Message	Attachments	Options	Actions
Alert #5 my_first_instrument <i>Email was ACTIVE when deleted</i>	Send <b>now</b> Repeat forever	Test Form for new cron task schedule <a href="#">Preview Message</a> <a href="#">Preview Message by Record</a>	0 files	Send emails for any Form status? <b>Yes</b> Resend Emails on Form Re-save? <b>No</b> REDCap Logic: <b>None</b>	<a href="#">Re-Enable</a> <a href="#">Permanently Delete</a>

Showing 1 to 1 of 1 entries (filtered from 3 total entries)

Previous1Next

Admins can choose to permanently delete the alert or re-enable it to use again.

*Note: this section will only be seen by users that have "User Rights" privileges enabled.*

# Deactivated Alerts

When unchecking the option *Active only*, active and deactivated alerts will display. Deactivated Alerts cannot be edited. To do so the alert needs to be activated first.

*Note: When deactivating an alert, all queued elements will be also deactivated.*

Form	Scheduled for	Message	Attachments	Options	Actions
Alert #11 my_first_instrument <i>Email deactivated</i> Scheduled records activated: 2	Send <b>now</b>	Send to: datacore@vumc.org Veggies: [event_2_arm_1][veggies] AND [veggies] <a href="#">Preview Message</a> <a href="#">Preview Message by Record</a> <a href="#">Preview Queued Emails</a>	0 files	Send emails for any Form status? <b>No</b> Resend Emails on Form Re-save? <b>Yes</b> REDCap Logic: <b>None</b>	<a href="#">Activate</a> <a href="#">Duplicate</a> <a href="#">Delete</a>

# Message Preview

There are three options available regarding previews:

Message
Send to: datacore@vumc.org Veggies: [event_2_arm_1][veggies] AND [veggies] <a href="#">Preview Message</a> <a href="#">Preview Message by Record</a> <a href="#">Preview Queued Emails</a>

**Preview Message:** Preview message shows how the message without any record specific data.

Preview Email Alert ×

<b>From:</b>	noreply@vanderbilt.edu,""
<b>To:</b>	datacore@vanderbilt.edu
<b>Subject:</b>	TEST schedule - NOW Repeat 1 day
<b>Message:</b>	Option: [f1]

Close

**Preview Message by Record:** This option shows how an alert looks for a specific record. Meaning all piped values will show after selecting the record.

*Note: the link will only be seen by users that have "User Rights" privileges enabled.*

Record Preview ×

Select a record to preview the email

Select a Record ▼

Select a Record

1

2

3

4

5

6

7

8

After selecting the record the message will load:

Record Preview ×

Select a record to preview the email

1 ▼

<b>From:</b>	noreply@vanderbilt.edu,""
<b>To:</b>	datacore@vanderbilt.edu
<b>Subject:</b>	TEST schedule - NOW Repeat 1 day
<b>Message:</b>	Option: Yes

Cancel

*Note: If the number of records is bigger than 500, instead of a drop down an input box will appear.*

**Preview Queued Emails:** This option shows a table with all the queued emails and information about them. You can also delete a queued alert if needed.

Preview Queue

×

Created on	Times Sent	Last Sent	Record	Event	Instrument	Instance	Repeat Instrument	Option	Deactivated	Delete
2018-07-24	0		1	125	my_first_instrument	1		now	1	
2018-07-24	0		1	125	my_first_instrument	4		now	1	

Close

*Note: the link will only be seen by SUPER USERS*

## Records activated

Records activated tells how many emails have been sent. If available, a link will be display; this link will open a window with a list of record for which the alert has been sent/activated. The same will happen for Scheduled records, a list of records within the active queue will display.

Form

Alert #3  
my\_first\_instrument  
Most recently activated on: 2018-07-24  
Records activated: 4  
Scheduled records activated: 5, 6, 7, 8

Scheduled for  
Send now  
Repeat for 1 days forever

Records for Alert #3 ×  
5, 6, 7, 8

Form

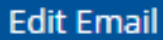
Alert #3  
my\_first\_instrument  
Most recently activated on: 2018-07-24  
Records activated: 4  
Scheduled records activated: 6, 7, 8

Scheduled for  
Send now  
Repeat for 1 days forever

Scheduled Records for Alert #3 ×  
6, 7, 8

# Alert Buttons

There are four buttons that each alert will have.

A blue rectangular button with the text "Edit Email" in white.

**Edit Email:** Opens the editor mode of the alert to edit any changes.

A light blue rectangular button with the text "Deactivate" in white.

**Deactivate Alert:** when clicking on it, it will ask to activate or deactivate an alert. If the alert is deactivated, it will disappear from the table. To see all the non-active alert simply uncheck the **Active only** checkbox at the top of the table.

A green rectangular button with the text "Duplicate" in white.

**Duplicate:** duplicate will copy all fields of an alert to create a new one with the same settings.

*Note: Attachments will not be copied.*

An orange rectangular button with the text "Add Queue" in white.

**Add Queue:** When clicking it, it will allow the option to manually insert an email to the queue.

*Note: ONLY VISIBLE FOR SUPER USERS and if the Alert has Re-Send Emails deactivated.*

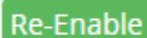
A red rectangular button with the text "Delete" in white.

**Delete:** will delete an alert from the system.

*Note: When deleting an alert, all queued elements will be deactivated.*

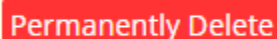
- Deleted status buttons (only admins)

These buttons will appear when an admin clicks on the *Deleted (user)* checkbox:

A green rectangular button with the text "Re-Enable" in white.

**Re-Enable:** will enable an alert that has been deleted by the user.

*Note: The alert will become enabled with its previous status. If it was deactivated, it will keep that status.*

A red rectangular button with the text "Permanently Delete" in white.

**Permanently Delete:** will permanently delete an alert. The logging will show all of the alert information when deleted, in case it needs to be recreated. Deleted status buttons (only admins)

- Add Queue (only SUPER USERS)

This button will appear only for super users and when the alert has the option *Resend Emails on Form Re-save?* Deactivated.

When clicking on it, a window will appear:

Add a Queue Email

×


*\*This is to add records that are not in the queue or that have been deleted.*

Event ID

▼

Date record was last sent via the queue  
*\*This value only needs to be entered if record was previously in queue*

YYYY-MM-DD



Number of times the email has previously been sent for the records added below.  
*\*0 if you want to send it right now, otherwise enter a number.*

0

Example of use:  
Date the email will be sent = Alert date + (Alert repeating days \* Times Sent)  
2018-07-15 = 2018-07-09 + (3 \* 2)

Insert the **Record ID's** to automatically Add the Queues Emails.  
*ID's can be separated by comma, semicolon or line break (not mixed).*

Cancel

Add Queue

This window allows to manually add records to the queue. There are several fields:

**Event ID:** The event ID for that record. If the Event is repeatable a new field will appear:

Event ID

Event 1 ▼

Add Instances  
*\*If none is typed, only the first instance added*

**Add Instances:** the instance number for that record. If none is typed, "1" will be added by default.

**Date the record was last sent via the queue:** This is to add the last time the email was sent, if none added the email will be sent that same day.

*Note: If you add today's date it won't be sent today as it understands that day was already sent.*

**Number of times he emails has previously been sent:** 0 to send right now otherwise a number

**Record ID:** the records that will be in the queue.

It is important to have on mind that the Queue follows a sending formula:

**Date the email will be sent = Alert date + (Alert repeating days \* Times Sent)**

Example of use:

- Send email on 2018-07-09 and Repeat email for 3 days

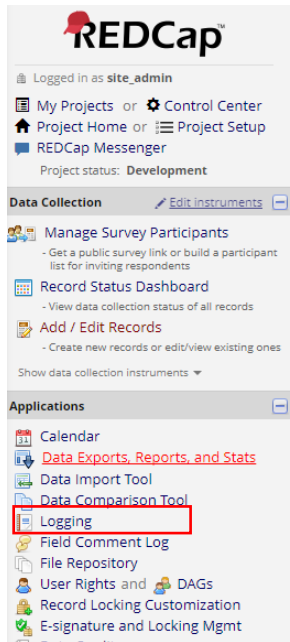
$2018-07-15 = 2018-07-09 + (3 * 2)$

- Send email Today and don't repeat

$\text{Today} = \text{Today} + (0)$



# Logging



In the left menu, on REDCap, there is the Logging option. This option allows the user to check information related to sent alerts.

For each alert sent there will be two logs:

**Email Sent To – Alert #:** lists which emails addresses have received the email

**Email Sent– Alert #:** Shows the Subject and Message of the alert.

Time / Date	Username	Action	List of Data Changes OR Fields Exported
10/30/2017 2:08pm	site_admin	Email Sent To - Alert 1 Record 15	eva.bascompte.moragas@vumc.org;eva@vumc.org;
10/30/2017 2:08pm	site_admin	Email Sent - Alert 1 Record 15	[Subject]: TEST, [Message]: <p>this is a test</p>

For each alert deleted, **by admins**, there will be two logs:

**Deleted Alert # To:** lists who should receive the email.

**Deleted Alert #:** Shows the Subject and Message of the alert.

01/15/2018 3:24pm	site_admin	Deleted Alert #1 To	eva@eva.com
01/15/2018 3:24pm	site_admin	Deleted Alert #1	[Subject]: Test 2, [Message]: <p>Test 2</p>

*Note: Email Triggers, Attachments, and Resend selection will not show in logging.*

Every time a change has been made into the **scheduled options**, the old and new settings will be displayed in the logs:

05/21/2018 4:37pm	site_admin	Modifications on Scheduled Alert 1 (Event 1)	Send on date: 2018-05-25 Repeat until 2018-05-20
05/21/2018 4:37pm	site_admin	Modifications on Scheduled Alert 1 - Old Settings (Event 1)	Send on date: 2018-05-25 Repeat forever

Also, **delete**, **permanently delete** and **activate/ deactivate** statuses on scheduled emails will be also displayed in the logs:

05/21/2018 5:53pm	site_admin	Deactivated (deleted) Scheduled Alert 3 (Event 1)	Record IDs deactivated: test,test3,test3,test3,test3,test3
05/21/2018 5:54pm	site_admin	Deleted Scheduled Alert 0 (Event 1)	Record IDs deleted: delete
05/21/2018 5:56pm	site_admin	Deactivate Scheduled Alert 1 (Event 1)	Record IDs deactivated: delete,test,test3,test3,test3,test3,test3

If a super user manually deletes a queue it will also display:

07/24/2018 8:33pm	site_admin	Queue deleted - Alert 11 (Event 1)	Queue #3 from Alert #11 manually deleted by site_admin
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# Longitudinal Projects

When having a longitudinal project, the way we will access the data will be slightly different.

- In the configuration table, to pipe values, we will have to add the event before the variable:

*Example: [event\_1\_arm\_1][field]*

- As we mentioned before, you will also have to specify the event in the Alert after selecting the instrument:

**REDCap Instrument Event:** For instrument used in a longitudinal study, a new selector will appear containing a list of events.

REDCap Instrument:	<input type="text" value="my_first_instrument"/>
* must provide value	
REDCap Instrument Event:	<input type="text"/>
Email Condition (REDCap logic):	<div>Event 1</div> <div>Event 2</div>