

V8.0.1.55

Relativity® 9.7 & above

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What is Email Event Handler?

Email Event Handler is a per workspace application, which provides the ability of configuring Email Templates, which act as subscriptions for sending email notifications from a Relativity object's layout, including data from the object and its ancestry.

Deployment

Depending on the strategy, follow the steps below:

Upgrading from a previous version

- Log into Relativity.
- Navigate to the Admin page.
- Navigate to the **Application Library** tab.
- Click on the **Upload Application** button.
- Click on the **Browse...** button for the Application File field.
- Find the RA_Email_Event_Handler.rap (installer) file and click Open.
- Click the **Save** button.

Note: **Migration Handlers Component** is responsible for moving the values from the legacy "**Object Name**" & "**Layout Artifact ID**" fields to the newly added "**Object**" & "**Object Layout**" fields during an upgrade from version/s 8.0.0.X to 8.0.1.X.

Note: **Migration Handlers Component** is responsible for moving the values from the legacy **Send Email Trigger** field to the newly added **"Send Email Trigger Condition"** object during an upgrade from version/s 8.0.0.X/8.0.1.14 to 8.0.1.54.

Performing a clean installation

- Log into Relativity.
- Navigate to the Admin page.
- Navigate to the **Application Library** tab.
- Click on the Upload Application button.
- Click on the **Browse...** button for the Application File field.
- Find the RA_Email_Event_Handler.rap (installer) file and click Open.
- Click the **Save** button.
- In the Workspaces Installed section, click on the **Install** button.
- In the Workspaces section, click the ellipsis (...) button.
- In the popup window, select the desired workspace(s) and click the **Ok** button.
- Click the Save button.

SMTP Configurations

In order to be able to send/receive email notifications via Email Event Handler, an SMTP server is required. The Email Event Handler application has an **SMTP Configurations** tab, where the SMTP settings could be configured:

- 1. Navigate to **Email Event Handler** tab -> **SMTP Configurations** tab.
- 2. Click on the New SMTP Configuration button.
- 3. Depending on the type of configuration:

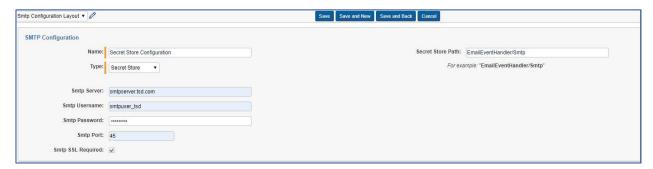
• Instance Settings Configuration

For this configuration type, the SMTP credentials are retrieved from the **Relativity Instance Settings**. The appropriate instance setting section and keys need to be set, so the values could be read according to them.



Secret Store Configuration

In this configuration type, the Email Event Handler utilizes **Relativity's Secret Store** to store the SMTP credentials. Once the fields on the layout have been filled and saved, they will be used to automatically create a **Relativity Secret**, which will be bound to the dedicated path.

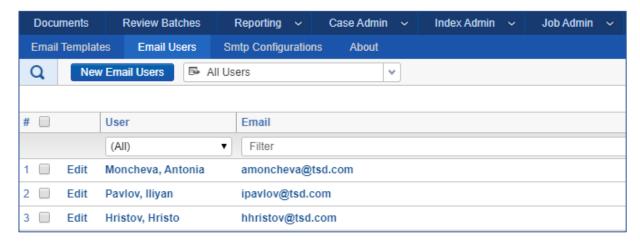


Note: Keep in mind, that different **Secret Store Paths** must be used for separate configurations to avoid overriding. Once saving the SMTP configuration, the credentials will be automatically saved in the encrypted **Relativity Secret Store** and deleted from the object's layout.

Email Users

In order to use **Relativity Users** to send/receive email notifications via Email Event Handler, the desired users must be created as **Email Users**, so they could be used in **Email Templates** later:

- 1. Navigate to **Email Event Handler** tab -> **Email Users** tab.
- 2. Click on the New Users button.
- 3. Select desired Relativity workspace user.
- When the email user object is saved, the email address will be populated automatically.



Note: Only users, which are part of at least one of the workspace's user groups will be displayed in the **User** dropdown field of the **Email Users** object.

Application workflow and setup

Email Event Handler uses custom defined **Email Templates**, which act as subscriptions to a specific **Object Type** & **Object's Layout**. They are used to configure how emails should be sent, what should they contain and to whom they should be sent. The sections below describe the setup and workflow of the application.

Configuring an Object Type

Before creating a dedicated **Email Template** for an **Object Type**, the following must be done for the specific object type:

- > Create the following fields for the **Object Type**:
- 1. Send Email To Multiple Object
 - The field can be named anything.
 - The field name must be unique.
 - Set Associative Object Type to Email Users.
- 2. Add the created field to the layout(s) for the custom object.

Note: Multiple sets of the **Send Email To** fields (with unique names) could be created and used in different **Email Templates**.

Note: If the **Send Email To** field values will be overridden by setting the **Default Send Email** and **Default Send Email To** fields in the **Email Template**, it is not necessary and recommended that **Send Email To** is NOT added to the object's layout. It is only required to be added to the object's layout, when the **Default Send Email** and **Default Send Email To** fields are not set in the **Email Template**.

- Add the **Email Event Handler** to the **Object Type**. Perform this step for new installations of this solution and new **Object Types** within a workspace.
- 1. Navigate to **Administration** tab -> **Object Type** tab.
- 2. Select the dedicated **Object Type.**
- 3. Under Event Handlers view, select: TSD.EEH.EventHandlers.SendEmailForCustomObject

Email Templates

Please, follow the steps below to create an **Email Template**:

- 1. Navigate to **Email Event Handler** tab -> **Email Templates** tab.
- 2. Click on the **New Email Template** button.
- **Enter the following under the Custom Object Information** category:
- Object Choose the Relativity Object Type, to which the subscription should be bound.
- **Object Layout** Choose the desired **Layout** of the above selected **Object Type**, in which the subscription should be triggered.
- **Object Indicator Character** This field allows users to customize the object indicator, if necessary. When left blank, the default the object indicator is the symbol **colon** ':'. This optional field is available to give users the ability to use placeholders (see section **Placeholders**), that include the default object indicator character.

Example:

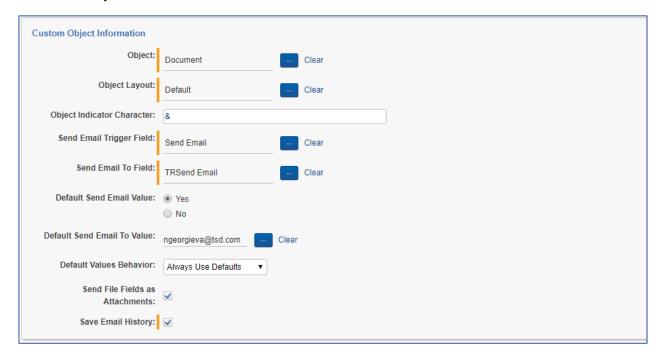
A user wants to print the value of a field named: "Notes: Doctor". The user must change the object indicator in order to print the field because the field name contains a colon which is the default object indicator. After changing the object indicator to ^, the user is able to print the field in the following manner: <Notes:Doctor>.

- The updated object indicator also allows the field to be printed with the @PrintWholeLayout@ placeholder.
- Updating the object indicator will require any placeholders, that were using the previous object indicator in the template to be updated to use the new value.

Placeholders with Default Object Indicator	Placeholders with Customized Object Indicator
<pre><parent:></parent:></pre>	<parent^></parent^>
<pre><parent:name></parent:name></pre>	<parent^name></parent^name>
<child:></child:>	<child^></child^>

<child:childobject:name></child:childobject:name>	<child^childobject^name></child^childobject^name>
<objectfield:responsive></objectfield:responsive>	<objectfield^responsive></objectfield^responsive>

- Default Send Email Value To override the Send Email Trigger Condition object, set the Default Send Email Value field's value. If Yes is selected, an email will be sent each time the object is saved, regardless of what condition is set to the selected trigger field in the Send Email Trigger Condition object. If No is selected, an email will not be sent regardless of what is set in the Send Email Trigger Condition object. If the value of Default Send Email Value field is not set (NULL), an email will be sent according to the selected trigger condition.
- **Send Email To Field** The Multiple Object field located on the layout of the selected **Object Type** (not the **Email Users** object). This field's value will determine the list of email recipients.
- **Default Send Email To Value** To override the **Send Email To Field**, set the **Default Send Email To Value** field's value. When this field is set, the email will be sent to the users who are selected regardless of what is set in the **Send Email To** Field on the layout.
- Default Values Behavior To select the option of appending more users as recipients select
 "Users Append Defaults". To select the option of overriding the Default Send Email To value,
 select "Users Override Defaults". To select the option of using the values of Default Send Email
 To field select "Always Use Defaults".
- **Send File Fields as Attachments** determines whether files in File fields should be sent as attachments in the email.
- Save Email History determines whether to keep track of history emails for this particular template. Setting this to *Yes* will result in saving each email sent from this template in the Email History tab.



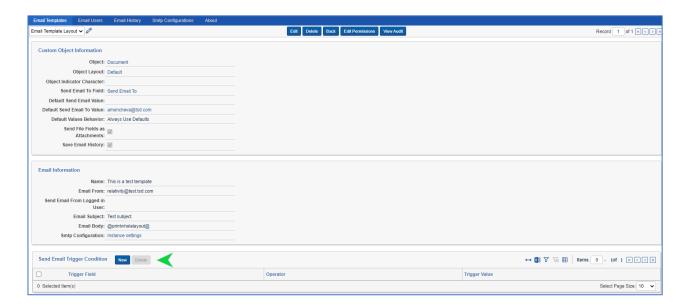
- Enter the following under the Email Information category:
- Name Descriptive name of the Email Template.

- **Email From** The email address, from which the email will be sent.
- **Send Email From Logged in User** To have the email sent from the user who is saving the object, set this field to *Yes*. To have the email sent from the email address specified in the Email From field, set this field to *No* or do not set this field.
- **Email Subject** The subject of the email message.
- **Email Body** The body content of the email message.

Note: The **Email From** field cannot be set, if the **Send Email From Logged in User** field is set to **Yes.**



Note: Different placeholders (e.g. **@printwholelayout@**) could be used in the email subject/body, when configuring an **Email Template**. These placeholders are used to extract certain parts of information from the object being edited (or its ancestry). Please, refer to **Supported placeholders** section for full details on the available placeholders.



➤ Once the **Email Template** is saved, the **Send Email Trigger Condition** category will be visible and users will be able to set a condition, associated with a field, which belongs to the selected Object in the **Object** field, as a trigger for sending email notifications:

Note: Different field types can be used as a trigger, by configuring the **Send Email Trigger Condition**. Please, refer to **Supported Trigger Fields** for full details on the available fields and conditions.

Note: Only one **Send Email Trigger Condition** is allowed per **Email Template**.

Supported trigger fields

Trigger Field	Available Operators	Description
Currency	 Is Is Not Is Greater Than Is Less Than 	When "Is" operator is selected an email notification is sent if the added value (in the Trigger Value field) matches the value in the Currency field, which belongs to the selected Object in the Email Template. When "Is not" operator is selected an email, notification is sent if the added value (in the Trigger Value field) does not match the value in the Currency field, which belong to the selected Object in the Email Template. When "Is Greater Than" operator is selected an email, notification is sent if the added value (in the Trigger Value field) is less than the value of the Currency Field, which belongs to the selected Object in the Email Template. When "Is Less Than" operator is selected an email, notification is sent if the added value (in the Trigger Value field) is greater than the value of the Currency Field, which belongs to the selected Object in the Email Template.
Date	 Is Is Not Is Greater Than Is Less Than 	When "Is" operator is selected, an email notification is sent if the added value (in the Trigger Value field) matches the value of the Date field which belongs to selected Object in the Email Template. When "Is not" operator is selected, an email notification is sent if the added value (in the Trigger Value field) does not match the value in the Date field , which belongs to the selected Object in the Email Template.

		When "Is Greater Than" operator is selected an email, notification is sent if the added value (in the Trigger Value field) is less than the value in the Date Field, which belongs to the selected Object in the Email Template. When "Is Less Than" operator is selected an email, notification is sent if the added value (in the Trigger Value field) is greater than the value of the Date Field, which belongs to the selected Object in the Email Template.
Decimal	 Is Is Not Is Greater Than Is Less Than 	When "Is" operator is selected, an email notification is sent if the added value (in the Trigger Value field) matches the value of the Decimal field which belongs to selected Object in the Email Template. When "Is not" operator is selected, an email notification is sent if the added value (in the Trigger Value field) does not match the value in the Decimal field , which belongs to the selected Object in the Email Template. When "Is Greater Than" operator is selected an email, notification is sent if the added value (in the Trigger Value field) is less than the value in the Decimal Field, which belongs to the selected Object in the Email Template. When "Is Less Than" operator is selected an email, notification is sent if the added value (in the Trigger Value field) is greater than the value of the Decimal Field, which belongs to the selected Object in the Email Template.
Fixed – Length Text	 Is Is Not Contains Does Not Contain 	When "Is" operator is selected, an email notification is sent if the added value (in the Trigger Value field) matches the value of the Fixed-Length Text field which belongs to selected Object in the Email Template. When "Is not" operator is selected, an email notification is sent if the added value (in the Trigger Value field) does not match the value in the Fixed-Length Text field , which belongs to the selected Object in the Email Template. When "Contains" operator is selected an email notification is sent if the added value (in the Trigger Value field) is contained by the Fixed-Length Text field, which belongs to the selected Object in the Email Template. When "Does Not Contain" operator is selected an email notification is sent if the added value (in the Trigger Value field) is not contained in the Fixed-Length Text field, which belongs to the selected Object in the Email Template.

Long Text	•	Is Is Not Contains Does Not Contain	When "Is" operator is selected, an email notification is sent if the added value (in the Trigger Value field) matches the value of the Long Text field which belongs to selected Object in the Email Template. When "Is not" operator is selected, an email notification is sent if the added value (in the Trigger Value field) does not match the value in the Long Text field , which belongs to the selected Object in the Email Template. When "Contains" operator is selected an email notification is sent if the added value (in the Trigger Value field) is contained by the Long Text field, which belongs to the selected Object in the Email Template.
			When " Does Not Contain" operator is selected an email notification is sent if the added value (in the Trigger Value field) is not contained in the Long Text field, which belongs to the selected Object in the Email Template.
Multiple Choice	•	Is Is Not Contains Does Not Contain Intersects	When "Is" operator is selected, an email notification is sent if the added value(s) (in the Trigger Value field) match(es) the value(s) of the Multiple Choice field which belong(s) to selected Object in the Email Template. When "Is not" operator is selected, an email notification is sent if the added value (in the Trigger Value field) does not match the value in the Multiple Choice field , which belongs to the selected Object in the Email Template. When "Contains" operator is selected an email notification is sent if all of the added values (in the Trigger Value field) are contained by the Multiple Choice field, which belongs to the selected Object in the Email Template. When "Does Not Contain" operator is selected an email notification is sent if all the added values (in the Trigger Value field) are not contained in Multiple Choice field, which belongs to the selected Object in the Email Template. When "Intersects" operator is selected an email notification is sent if at least one of the added values (in the Trigger Value field) matches a value in the Multiple Choice field, which belongs to the selected Object in the Email Template.
Single Choice	•	Is Is Not	When "Is" operator is selected, an email notification is sent if the added value (in the Trigger Value field) matches the value of the Single Choice field which belongs to selected Object in the Email Template.

		When "Is not" operator is selected, an email notification is sent if the added value (in the Trigger Value field) does not match the value in the Single Choice field, which belongs to the selected Object in the Email Template.
Whole Number	 Is Is Not Is Greater Than Is Less Than 	When "Is" operator is selected, an email notification is sent if the added value (in the Trigger Value field) matches the value of the Whole Number field which belongs to selected Object in the Email Template. When "Is not" operator is selected, an email notification is sent if the added value (in the Trigger Value field) does not match the value in the Whole Number field , which belongs to the selected Object in the Email Template. When "Is Greater Than" operator is selected an email, notification is sent if the added value (in the Trigger Value field) is less than the value in the Whole Number Field, which belongs to the selected Object in the Email Template. When "Is Less Than" operator is selected an email, notification is sent if the added value (in the Trigger Value field) is greater than the value of the Whole Number Field, which belongs to the selected Object in the Email Template.
Yes/ No	IsIs Not	When "Is" operator is selected, an email notification is sent if the added value (in the Trigger Value field) matches the value of the Yes/No field which belongs to selected Object in the Email Template. When "Is not" operator is selected, an email notification is sent if the added value (in the Trigger Value field) does not match the value in the Yes/No field , which belongs to the selected Object in the Email Template.

Note: The **Trigger Value** field can be blank (NULL), only when using **Is/Is Not** operators.

Note: Only True, False and blank (NULL) values are considered as valid, when **Yes/No** type field is selected as a trigger.

To create a new trigger condition, navigate to the **Send Email Trigger Condition** layout, under *Email Body* section and click the **New** button. Once the layout is loaded, add the desired field and condition in the corresponding fields:



Workflow logic

When a template exists for the current object and layout being edited, an email will be sent when the **Save/Save & Next** button is clicked, and the following criteria are met:

- The selected Send Email To Field is set OR the Default Send Email To Value is set.
 - When the **Default Send Email To Value** is set, it will override the value chosen in the
 Send Email To Field on the layout (depending on the **Default Values Behavior** choice).
- The condition set in the Email Template's **Send Email Trigger Condition** is satisfied by the value of the field in the selected Object's layout.

The email sent will contain the following information:

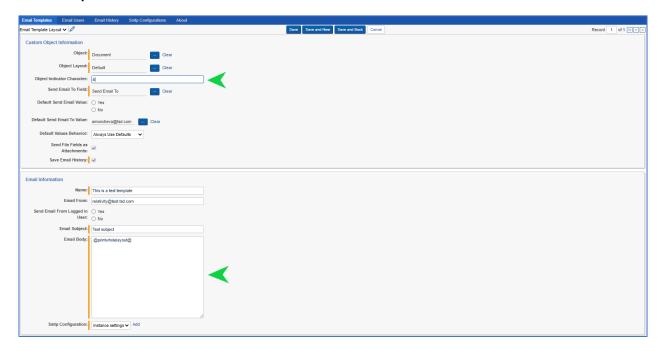
- **Email To** If the **Default Send Email To Value** is set, that email list will be used. Otherwise, the value will be pulled from the **Send Email Trigger Field** currently set on the layout.
- Email From If the Send Email From Logged in User field is set to *Yes*, the email will be sent from the user who is currently editing the layout. Otherwise, the value will be pulled from the Email From field in the template.
- **Email Subject** This is pulled from the dedicated **Email Subject** field specified in the template (any placeholders will be replaced with the appropriate content).
- **Email Body** This is pulled from the dedicated **Email Body** field specified in the template (any placeholders will be replaced with the appropriate content).

Supported placeholders

Placeholder	Description
@PrintWholeLayout@	Displays an HTML representation of the layout including categories and views.
@fields@	Displays all the fields on the main object
@link@	Displays a link to the main object
<fieldname></fieldname>	Displays the field value of a field on the main object
<objectfieldname:innerfieldname></objectfieldname:innerfieldname>	Displays the field value of the objects associated with the main objects, object field(Single and Multi object fields supported)
<parent:></parent:>	Displays the name of the main object's parent object
<parent:fieldname></parent:fieldname>	Displays the field value of a field on the main object's parent object

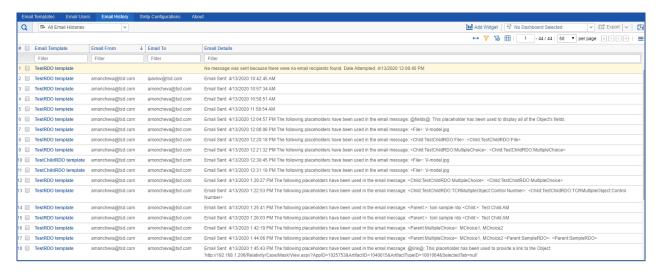
<parent:objectfieldname:innerfieldname></parent:objectfieldname:innerfieldname>	Displays the field value of the objects associated with the main object's parent object, object field(Single and Multi object fields supported)
<child:></child:>	Displays the name of all the child objects
<child:objecttypename:fieldname></child:objecttypename:fieldname>	Displays the field value of ObjectType child objects of the main object
<child:objecttypename:objectfieldname:innerfieldname></child:objecttypename:objectfieldname:innerfieldname>	Displays the field value of the objects associated with the main object's children of ObjectType, object field(Single and Multi object fields supported)
<view:1234567></view:1234567>	Displays an HTML representation of the view denoted by the specified artifactID(e.g. 1234567). The view must exist on the layout that is specified in the email template configuration.

These examples use the default **Object Indicator Character** which is the **colon** ':' symbol. The **colon** symbol in these examples must be replaced, if a custom **Object Indicator Character** is specified in the **Email Template**.



Email History

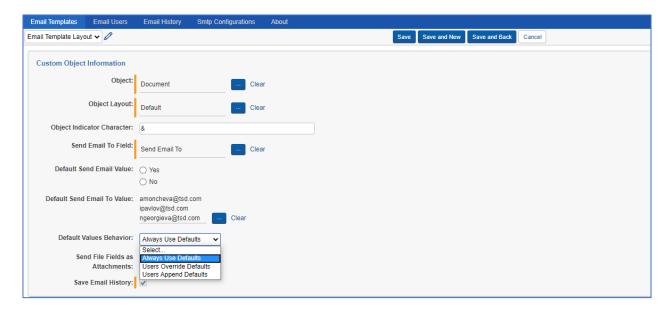
Email History tab of **Email Event Handler** holds all email histories for all **Email Templates** and **Object Types** in a Workspace. Dedicated users will be able to preview senders, recipients, and email details for each individual email sent via **Email Event Handler**:



Note: Only **Email Templates** with **Save Email History** field set to **Yes** will be tracked and saved in the **Email History** tab.

Special Considerations

- Email Templates do not support the **ArtifactID** field.
- Email Templates do not support the **Produced Documents** field.
- A **colon** ':' is the default object indicator used when the value is empty in the email template. The value of the object indicator can be customized in the email template.
- Field values will not be returned if the field name contains the object indicator.
- Files from "File" fields can be sent as attachments to the emails, depending on the "Send File Fields as Attachments" Yes/No field, which is part of the Email Template Layout.
- **Default Send Email Value** should not be set in order to use the selected **Send Email Trigger Condition** as a trigger, when the selected Object's layout is edited & saved.
- If **Default Send Email To Value** is not set, then the selected **Send Email To Field** must be on the specified layout otherwise no email will be sent.
- Once an email is sent, the **Send Email To Field** will be cleared out.
- Default Values Behavior field, which is part of the Email Template Layout gives the ability to add extra users as recipients or override the default set of recipients by selecting one of the choices ("Users Append Defaults", "Users Override Defaults") and manipulating recipients from the Object's layout Send Email To field. When "Always Use Defaults" choice is set, notifications will be sent to the recipients added to Default Send Email To Value field. If Default Send Email To Value field is not set, Default Values Behavior field won't be present in the Email Template.



- Be mindful of which layout emails are sent, as it may be possible to send information about objects to users without sufficient access.
- The solution can timeout depending on the number of fields that exist on an object. We recommend referencing no more than 5 objects in multi-object fields and referencing views that display no more than 5 objects.
- The view syntax (<view:123456>) can only by used when the specified view exists on the layout specified in the email template configuration.
- The event handler will be triggered only on the **Save** or **Save & Next** actions, and therefore will not apply to mass edit operations or associated object list modifications.
- This rule will apply only to the coding performed after the event handler is implemented. Precoded objects would need to be re-coded for the rule to take effect.
- The event handler will be coded with the name of the fields and choices; if the name of any of the fields or choices is changed, the event handler will not work as desired.
- The field and choice names are case sensitive, if the case or field names do not match exactly an error will be thrown.
- Only users that have been granted explicit access to the workspace will be displayed in the User field drop down list when adding new Email User.
- Having an existing object with the names Email Template, Email Users, Email History or SMTP Configuration may cause problems during installation.