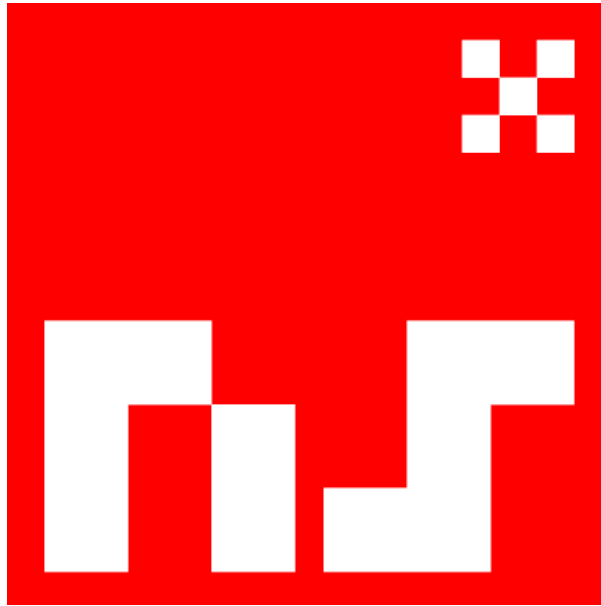




Notification Studio

User Manual

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Introduction

The Notification Studio is the #1 native Salesforce app for easily creating and designing professional notifications. To show you how to use the Notification Studio and what the capabilities are we will lead you through a few scenarios.

Installation

The installation of the Notification Studio app is quite straight forward. You can install the Notification Studio app for “Admins only”. After installation you need to give the end users “read” permission on the Display Notification and Display Notification Translation objects. You also need to add the DisplayNotificationController Apex Class to the end users’ profile or permission set. If you’re implementing and using the “Record_Update__e” Platform Event, make sure the end users also have access to this Platform Event.

Scenario 1

In the first scenario we will create a Banner Notification. The user story we’re going to implement is when we navigate to an Account record and the Parent Account is not active, the Account needs to show a notification that indicates that the Parent Account is not active.

Scenario 2

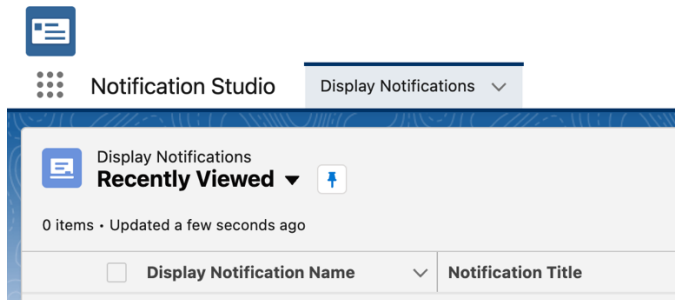
The second scenario is all about carbon emission. This scenario is a more complex scenario where we want to show the user different notifications with different levels of carbon emission.

Scenario 1: Parent Account is not Active

As described in the introduction, this scenario is about Accounts. In this case we want to notify the user when a Parent Account is not yet active. In that case we want to let the user know they should activate the Parent Account before they should create an Opportunity.

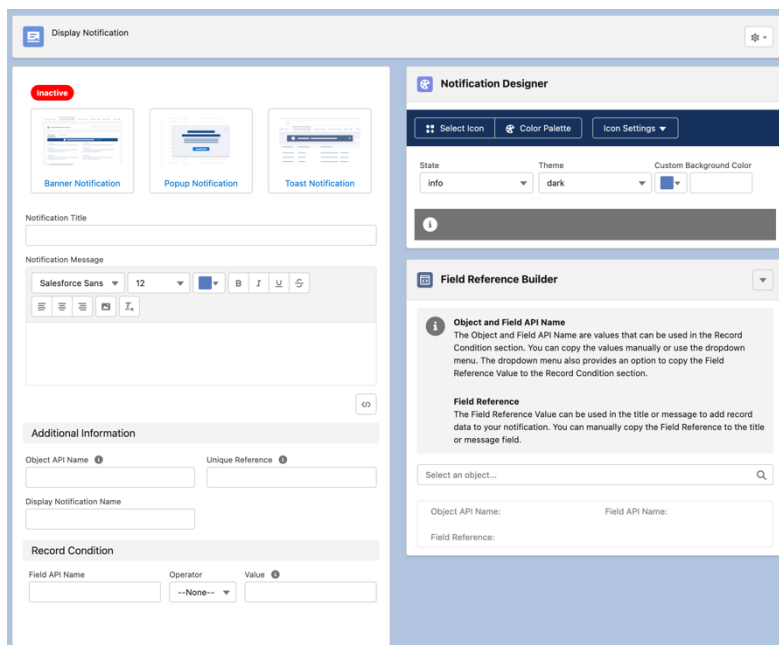
Create a new Display Notification

1. Navigate to the Notification Studio app.



After clicking the Notification Studio in the App Launcher, the tab “Display Notification” is presented.

2. Click the “New” button to create a new Display Notification.



The new Display Notification screen is displayed and the data can be filled in.

3. Select the notification type “Banner Notification” and fill out the form with the following information:
- Notification Title: “Parent Account is not Active”
 - Notification Message: “The Parent Account {!Parent.Name} is not active. Please make sure you activate the Parent Account before you start creating Opportunities.”
 - Object API Name: “Account”
 - Display Notification Name: “Parent Account not Active”
 - Field API Name: “Parent.Active__c”
 - Operator: “equals”
 - Value: “No”

See the form and Notification Designer below how this should look:

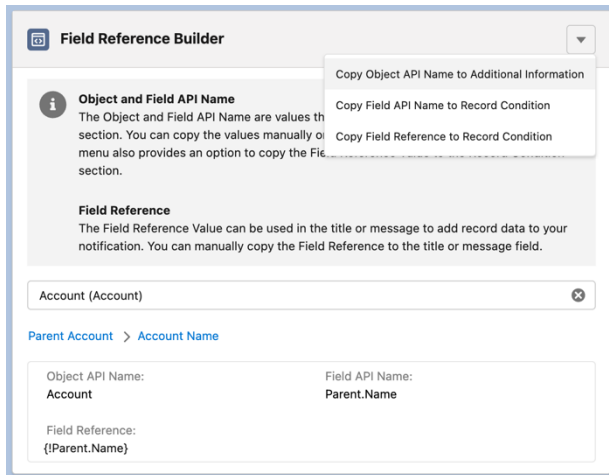
The screenshot shows the Notification Designer form with the following configuration:

- Notification Type:** Banner Notification (selected)
- Notification Title:** Parent Account is not Active
- Notification Message:** The Parent Account {!Parent.Name} is not active. Please make sure you activate the Parent Account before you start creating Opportunities.
- Additional Information:**
 - Object API Name:** Account
 - Unique Reference:** (empty)
 - Display Notification Name:** (empty)
- Record Condition:**
 - Field API Name:** Parent.Active__c
 - Operator:** equals
 - Value:** No

The screenshot shows the Notification Designer preview with the following configuration:

- Notification Designer**
- Select Icon:** (empty)
- Color Palette:** (empty)
- Icon Settings:** (empty)
- State:** info
- Theme:** dark
- Custom Background Color:** (empty)
- Notification Title:** Parent Account is not Active
- Notification Message:** The Parent Account {!Parent.Name} is not active. Please make sure you activate the Parent Account before you start creating Opportunities.

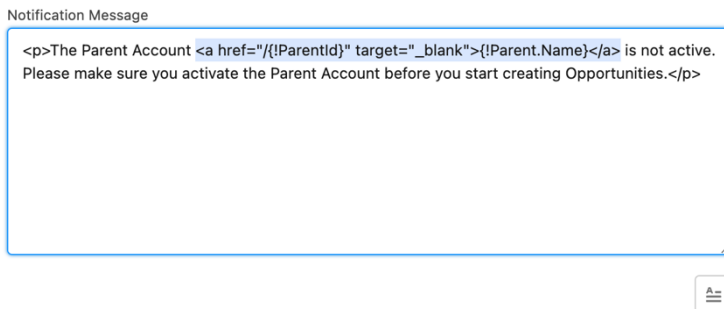
Notice that you can also use the Field Reference Builder to search and copy the Object API Name, Field API Name and Field Reference to the fields in the form in the left region.



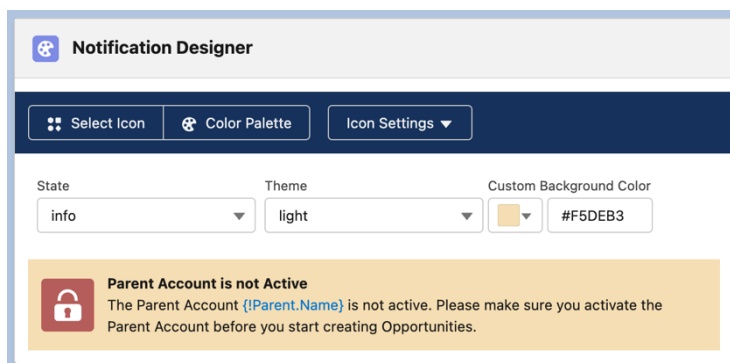
- We want to create a hyperlink of the Parent Account's Name, so that the user can directly navigate to the Parent Account. This can be done by clicking the button just beneath the Notification Message.



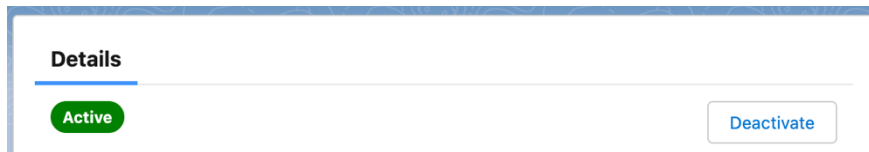
In the HTML Editor you can type in a hyperlink and this should look like this:



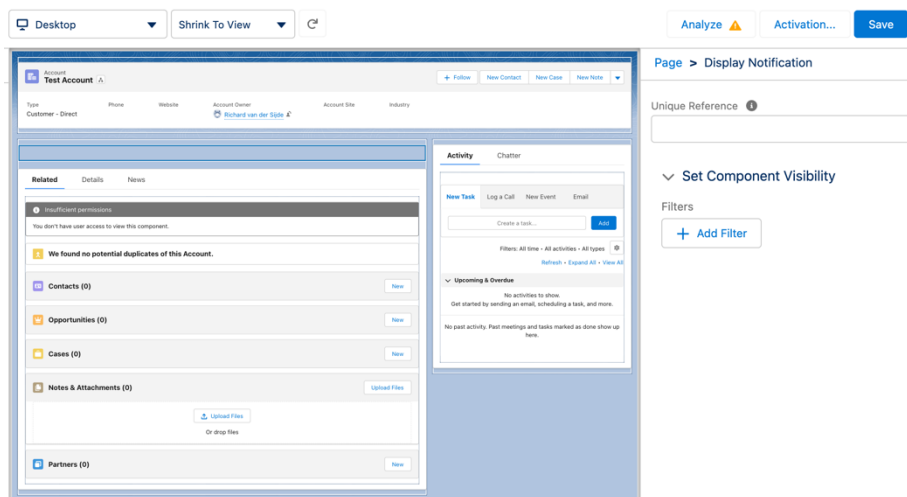
- Now we can 'design' the notification with the Notification Designer in the right region of the page. As you have seen, the preview in the Notification Studio is updated real-time with the title and message from the left region. We've selected a color "Wheat" from the color palette, a custom icon "custom77" and we've aligned the icon in the middle and selected the size large from the Icon Settings drop-down menu. Your notification should like this:



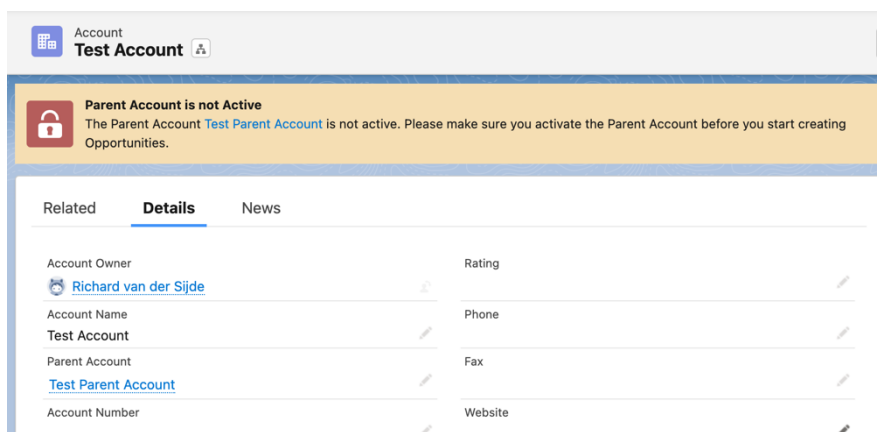
6. Click “Save”
7. On the record detail page, click the “Activate” button to make sure the notification is activated.



8. Navigate to the Setup menu > Object Manager > Account > Lightning Page Records.
9. Click the “Account Record Page” and click Edit to open the Lightning App Builder.
10. Drag the component “Display Notification” onto the page just above the section with detailed information. That should look like this:



11. “Save” and if necessary, “Activate” the page.
12. If we now setup an Account with a Parent Account where the field Active is set to “No” you should see the following notification. Notice that if you click the Parent Account name, a new tab will open with the Parent Account record.



Scenario 2: Carbon Emission Opportunity

In this scenario is a more complex scenario where we show you some more functionality you have with the Notification Studio.

In this scenario the Opportunity have a field called “Carbon Emission (kg/co2)”. The company determined they want to show the user a notification for different thresholds of kg/co2 carbon emission on their Opportunity. The table below shows the thresholds determined by the company.

kg/co2	Status	Notification
No value	NO_VALUE	If there is no value, the user should be notified that there is no value to indicate the carbon emission.
<100	LOW	The user gets a notification they can continue to progress their opportunity.
>= 100 AND < 250	MEDIUM	The user gets a notification they should first contact the climate department to discuss this opportunity and negotiate with the customer.
>= 250	HIGH	The user gets a notification they should close the opportunity immediately and let the custom know they can't do business.

Create an indicator formula field

First of all, we need to make sure we have a formula field that will show us the indication of the carbon emission value. The Record condition on a Display Notification record is only based upon 1 condition. The power already in Salesforce can be used to create a more complex condition for the Notification Studio app.

We create the following formula field based upon a custom numeric field “Carbon Emission (kg/co2)”.

Carbon Emission Indicator (Text) =

```
IF(AND(Carbon_Emission__c < 100, Carbon_Emission__c > 0), "LOW",
    IF(AND(Carbon_Emission__c >= 100, Carbon_Emission__c < 250), "MEDIUM",
        IF(Carbon_Emission__c >= 250, "HIGH", "NO_VALUE")
    )
)
```

Check Syntax

“No Value” Notification

We first a notification if the output of the formula field Carbon Emission Indicator is “NO_VALUE”. We create an informational Toast Notification that is sticky. That means it stays on top the page until the user clicks the close button of the Toast message.

When creating a new Display Notification, you can switch to advanced settings by clicking the settings drop-down menu in the header and selecting “Advanced Settings”.

The Display Notification record should look like this:

The screenshot shows the Salesforce interface for creating a Display Notification. The main form is titled "Display Notification Opportunity - Carbon Emission - No Value". It includes a "Notification Designer" section with options for Banner, Popup, and Toast notifications. The "Toast Notification" is selected. The "Notification Title" field is empty. The "Notification Message" field contains the text "There is no value available to indicate the Carbon Emission for this Opportunity." The "Additional Information" section includes fields for "Object API Name" (Opportunity), "Unique Reference", "Display Notification Name" (Opportunity - Carbon Emission - No Value), and "Record Condition" (Carbon_Emission_Indicator__c equals NO_VALUE). The "Advanced Settings" section includes fields for "Start Date Time", "End Date Time", "Event" (None), and "Toast Notification Mode" (sticky). The "Field Reference Builder" section shows the "Object and Field API Name" (Opportunity) and the "Field Reference" (Carbon_Emission_Indicator__c).

Display Notification
Opportunity - Carbon Emission - No Value

Notification Designer

Select Icon Color Palette Icon Settings

State: info Theme: dark Custom Background Color:

Custom Icon Name: utility:close Image Icon: Hide Icon: ☐

There is no value available to indicate the Carbon Emission for this Opportunity.

Field Reference Builder

Object and Field API Name
The Object and Field API Name are values that can be used in the Record Condition section. You can copy the values manually or use the dropdown menu. The dropdown menu also provides an option to copy the Field Reference Value to the Record Condition section.

Field Reference
The Field Reference Value can be used in the title or message to add record data to your notification. You can manually copy the Field Reference to the title or message field.

Opportunity (Opportunity)

Carbon Emission Indicator

Object API Name: Opportunity Field API Name: Carbon_Emission_Indicator__c

Field Reference: {Carbon_Emission_Indicator__c}

Additional Information

Object API Name: Opportunity Unique Reference:

Display Notification Name: Opportunity - Carbon Emission - No Value

Record Condition

Field API Name: Carbon_Emission_Indicator__c Operator: equals Value: NO_VALUE

Advanced Settings

Start Date Time: Time: End Date Time: Time:

Event: --None-- Toast Notification Mode: sticky

Don't forget to “Activate” the notification after you've saved the record.

“LOW” Carbon Emission Notification

Next notification we are going to create is the notification for low carbon emission. We are going to create a Banner notification in the color green with a wellness icon to indicate that this opportunity is ready to go. In the message to the user we also show them the carbon emission value.

The Display Notification record should look like this:

The screenshot displays the Salesforce Notification Designer interface for creating a 'LOW' Carbon Emission notification. The interface is divided into two main sections: the left pane for configuration and the right pane for design and field reference building.

Left Pane Configuration:

- Display Notification:** Opportunity - Carbon Emission - Low
- Notification Type:** Banner Notification (selected), Popup Notification, Toast Notification
- Notification Title:** Carbon Emission
- Notification Message:** The carbon emission of this Opportunity is only {!Carbon_Emission__c} kg/co2. That's a great achievement and that means you are ready to go and close this deal!
- Additional Information:**
 - Object API Name:** Opportunity
 - Unique Reference:**
 - Display Notification Name:** Opportunity - Carbon Emission - Low
- Record Condition:**
 - Field API Name:** Carbon_Emission_Indicator__c
 - Operator:** equals
 - Value:** LOW

Right Pane Design and Field Reference Builder:

- Notification Designer:**
 - Select Icon:** (Wellness icon)
 - Color Palette:** (Green)
 - Icon Settings:**
 - State:** info
 - Theme:** dark
 - Custom Background Color:** #228B22
- Field Reference Builder:**
 - Object and Field API Name:** The Object and Field API Name are values that can be used in the Record Condition section. You can copy the values manually or use the dropdown menu. The dropdown menu also provides an option to copy the Field Reference Value to the Record Condition section.
 - Field Reference:** The Field Reference Value can be used in the title or message to add record data to your notification. You can manually copy the Field Reference to the title or message field.
 - Select an object...**
 - Object API Name:**
 - Field API Name:**
 - Field Reference:**

Again, don't forget to Activate the notification after you've saved it.

“Medium” Carbon Emission Notification

The third notification we’re going to create is showing some sort of a warning to the user that they need to contact the climate department of this company before progressing the opportunity. We will again create a Banner notification with a more orange color and a warning icon. We use a hyperlink for the e-mail address so the user can directly start writing an e-mail after clicking the link.

The Display Notification record should look like this:

The screenshot shows the Salesforce Notification Designer interface. The main window is titled "Display Notification Opportunity - Carbon Emission - MEDIUM". It features a left sidebar with three notification types: Banner Notification (selected), Popup Notification, and Toast Notification. The main area displays the configuration for the selected notification. The "Notification Title" is "Carbon Emission". The "Notification Message" is a text block with a warning icon, stating: "The carbon emission for this Opportunity is {!Carbon_Emission__c} kg/co2. For now that's too high to continue this Opportunity and you will need to discuss this Opportunity with our Climate Department. Please contact them by sending an email or give them a call." Below the message, the email address "climate@ourcompany.com" is highlighted in blue, and the phone number "+31 184 100 998" is listed. The "Additional Information" section shows the "Object API Name" as "Opportunity" and the "Unique Reference" as "Opportunity - Carbon Emission - MEDIUM". The "Record Condition" section shows the "Field API Name" as "Carbon_Emission_Indicator__c", the "Operator" as "equals", and the "Value" as "MEDIUM". On the right, the "Notification Designer" panel shows the "State" as "info", the "Theme" as "light", and the "Custom Background Color" as "#EEEE8A". Below this, the "Field Reference Builder" panel provides instructions on how to use field references in the notification message.

Don't forget to Activate the notification after saving it.

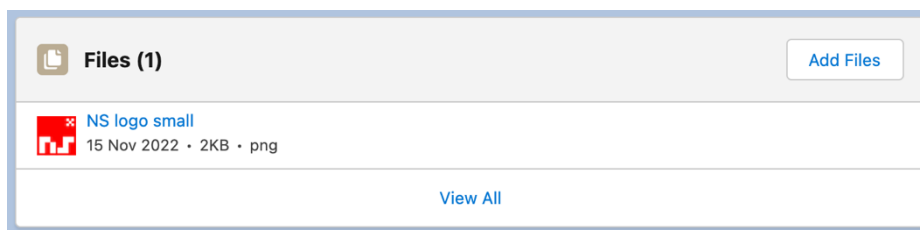
“HIGH” Carbon Emission Notification

With this notification we will go a different route. We will first clone the MEDIUM carbon emission notification and add an image to the record which then can be used as a custom image icon. As an example, we will use the Notification Studio logo. We will also let the user know in a few words that they need to abandon the Opportunity.

When we are at the Display Notification for “Medium” Carbon Emission we can click the “Clone” button to create a copy of the notification. We will only change the word “MEDIUM” into “HIGH” for the Display Notification Name and the Record Condition Value and click “Save”.

Notice that the copy of the notification is not yet Active!

We can upload an image file to the Files related list on the detail page of our new notification. Make sure the image is small of size and approximately around 50x50 pixels. Of course will larger images work as well, but you just have to play around with it.

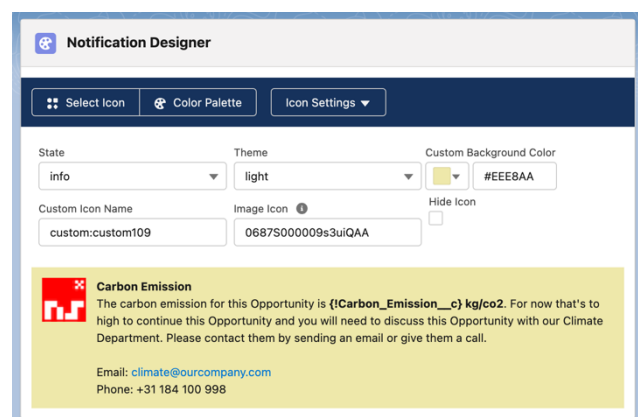


You need the Content Version Id for overwriting the standard icons Salesforce offer by your own image. You can open the image file with Ctrl or Cmd + mouse click, you will open the file information in a new tab and then you need to copy the file id from the url.

lightning.force.com/lightning/r/ContentDocument/0697S000009nXa3QAE/view

Go back to the Display Notification record and click Edit. Make sure in the edit page you select the Advanced Settings from the header drop-down menu.

In the Notification Designer you see a field Image Icon appear and you need to copy the value into that field. Because the Id is a Content Document the Notification Designer will get the Content Version Id instead.



We will change the notification message to a short powerful text with a bigger font size in bold. The background of the notification will be red with white letters (choose Theme “dark” in the Notification Designer).

The notification record should look like this and don’t forget....Activate the notification after you’ve saved it!

The screenshot displays the Salesforce Notification Designer interface. The main window is titled "Display Notification Opportunity - Carbon Emission - HIGH". It features a sidebar with three notification types: Banner Notification (selected), Popup Notification, and Toast Notification. The main content area shows the configuration for the selected notification. The "Notification Title" field is empty. The "Notification Message" field contains the text "TOO MUCH CARBON EMISSION. PLEASE ABANDON THIS OPPORTUNITY RIGHT NOW!". The "Additional Information" section includes fields for "Object API Name" (Opportunity), "Unique Reference", and "Display Notification Name" (Opportunity - Carbon Emission - HIGH). The "Record Condition" section shows a condition where the "Field API Name" is "Carbon_Emission_Indicator__c", the "Operator" is "equals", and the "Value" is "HIGH".

Notification Designer

Select Icon Color Palette Icon Settings

State: info Theme: dark Custom Background Color: #FF0000

TOO MUCH CARBON EMISSION. PLEASE ABANDON THIS OPPORTUNITY RIGHT NOW!

Field Reference Builder

Object and Field API Name
The Object and Field API Name are values that can be used in the Record Condition section. You can copy the values manually or use the dropdown menu. The dropdown menu also provides an option to copy the Field Reference Value to the Record Condition section.

Field Reference
The Field Reference Value can be used in the title or message to add record data to your notification. You can manually copy the Field Reference to the title or message field.

Select an object...

Object API Name: Field API Name:

Field Reference:

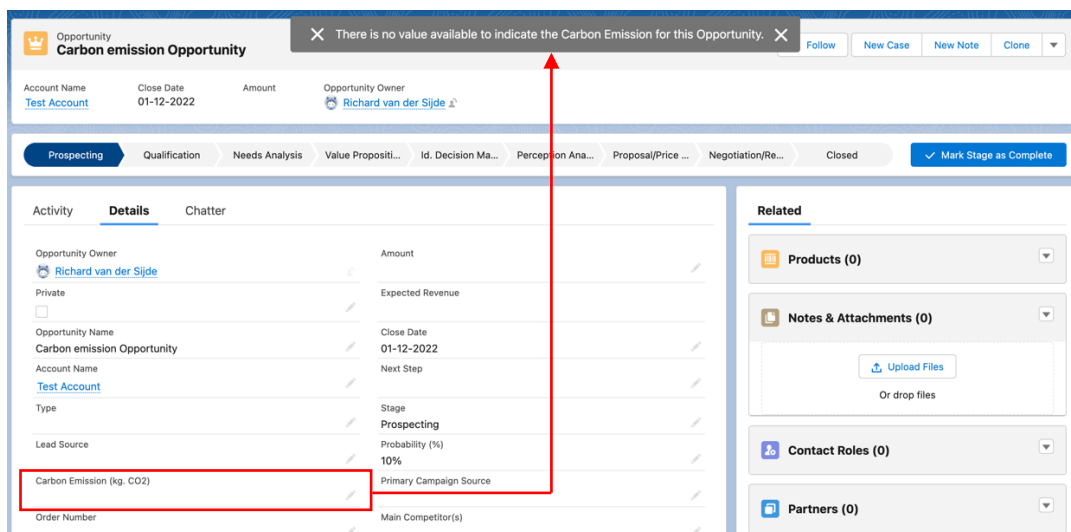
Add Display Notification Component to Lightning Page

If not already done, you need to add at least one Display Notification component to your Opportunity Lightning Page.

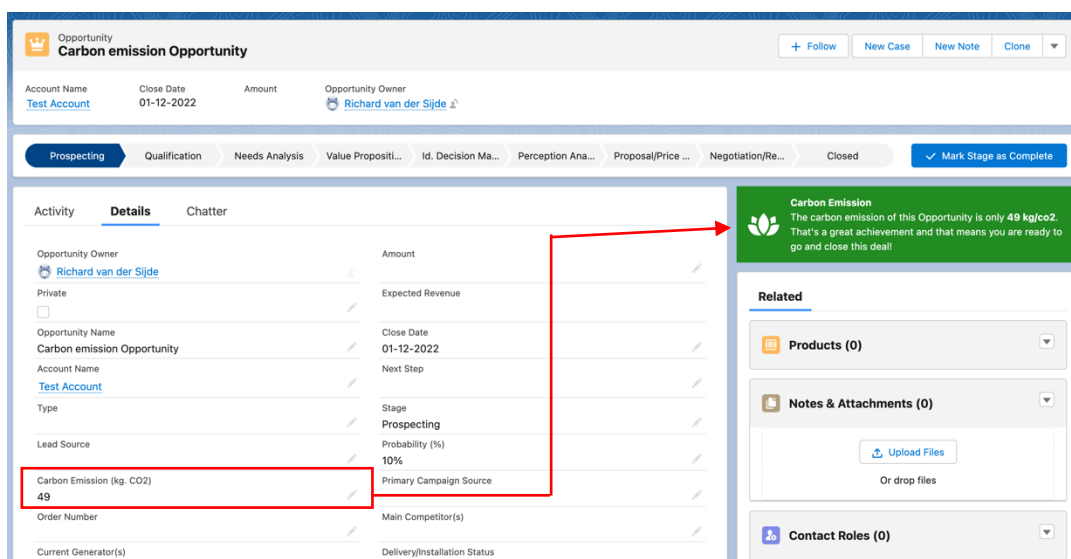
Open an Opportunity record or navigate to the Setup menu > Object Manager > Opportunity > Lightning Record Page and add the component.

Carbon Emission Opportunity Result

When you create an Opportunity without filling in the Carbon Emission the Display Notification component will show a Toast Notification to let the user know there is no data yet to show an indication.



When changing the Carbon Emission to a level within the range that the Opportunity will be indicated with "Low" Carbon Emission. In real-time the notification will change.



Increasing the Carbon Emission to a “Medium” value will immediately change into the following notification.

The screenshot shows the 'Carbon emission Opportunity' page. The 'Details' tab is active, displaying a form with various fields. A red box highlights the 'Carbon Emission (kg. CO2)' field, which contains the value '125'. A red arrow points from this field to a yellow notification box on the right. The notification box contains the following text:

Carbon Emission
The carbon emission for this Opportunity is **125 kg/co2**. For now that's to high to continue this Opportunity and you will need to discuss this Opportunity with our Climate Department. Please contact them by sending an email or give them a call.
Email: climate@ourcompany.com
Phone: +31 184 100 998

The notification box also includes contact information for the Climate Department. Below the notification box, there are sections for 'Related' items, including 'Products (0)' and 'Notes & Attachments (0)', with an 'Upload Files' button.

Increasing the Carbon Emission even more to a “High” value will immediately change the notification into the following message.

The screenshot shows the 'Carbon emission Opportunity' page. The 'Details' tab is active, displaying a form with various fields. A red box highlights the 'Carbon Emission (kg. CO2)' field, which contains the value '499'. A red arrow points from this field to a red notification box on the right. The notification box contains the following text:

TOO MUCH CARBON EMISSION. PLEASE ABANDON THIS OPPORTUNITY RIGHT NOW!

The notification box also includes contact information for the Climate Department. Below the notification box, there are sections for 'Related' items, including 'Products (0)', 'Notes & Attachments (0)', and 'Contact Roles (0)', with an 'Upload Files' button.

Small overview of additional functionality

Unique Reference

The unique reference can be used to match a Display Notification record with a specific Display Notification added to a Lightning Page. For example, to show notifications on the Home Page which is not a Record Lightning Page. Another option is to add a second Display Notification component to a Record Lightning Page, for example in one of the tab sections. You can specifically show messages only available for that specific component.

Below you see the edit page of a Display Notification created to show on the Home Page. Notice the Unique Reference that is set to “HOME_PAGE”.

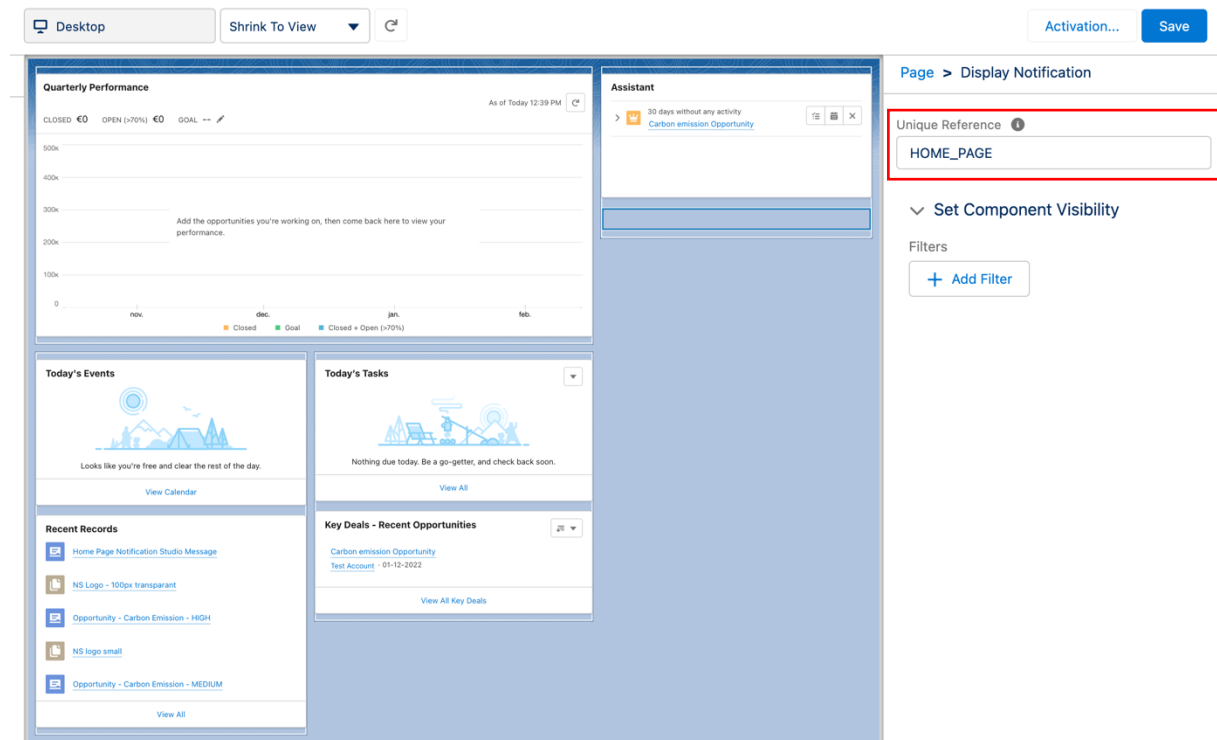
The screenshot displays the Salesforce Notification Studio interface for editing a Display Notification. The main form is titled "Display Notification Home Page Notification Studio Message". It includes a "Notification Designer" panel on the right and a "Field Reference Builder" panel on the bottom right. The main form has several sections:

- Notification Title:** Notification Studio
- Notification Message:** Dear {\${User.FirstName}} {\${User.LastName}},
Thanks for using the Notification Studio. If you need more information or have questions about our app, please contact us via e-mail: support@notification.studio
- Additional Information:**
 - Object API Name: (empty)
 - Unique Reference: HOME_PAGE (highlighted with a red box)
 - Display Notification Name: Home Page Notification Studio Message
- Record Condition:**
 - Field API Name: (empty)
 - Operator: --None--
 - Value: (empty)
- Advanced Settings:**
 - Start Date Time: (empty)
 - End Date Time: (empty)
 - Event: --None--
 - Toast Notification Mode: dismissible

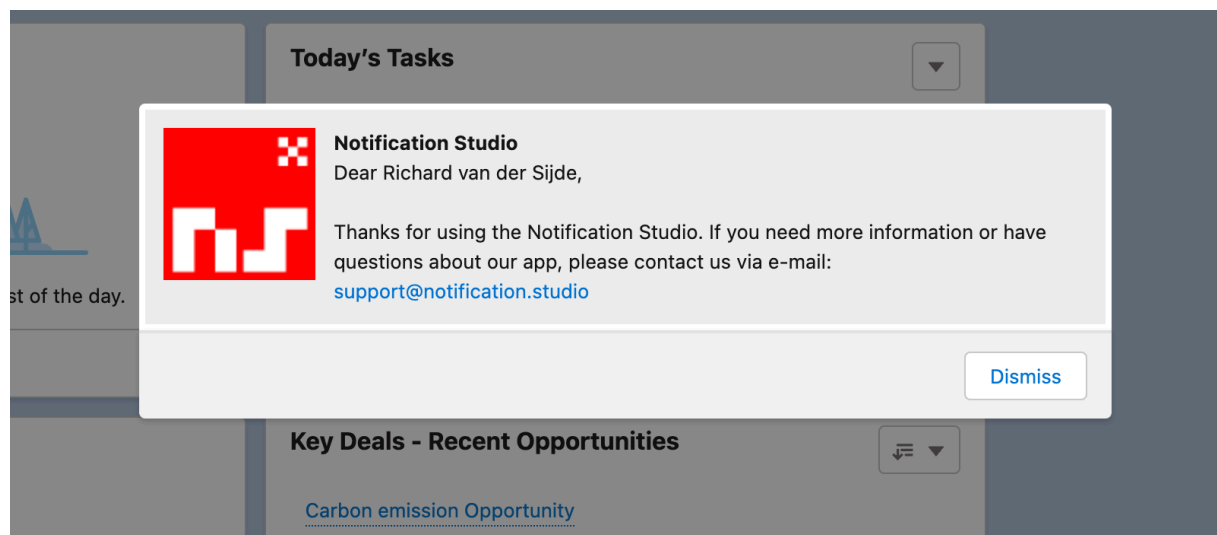
The "Notification Designer" panel on the right includes options for State (info), Theme (light), Custom Background Color (#EEEEEE), Custom Icon Name, Image Icon (0687S000009s6eSQAQ), and Hide Icon. It also shows a preview of the notification message.

The "Field Reference Builder" panel on the bottom right provides information about Object and Field API Name, and a section for Field Reference.

Adding the Display Notification to the Home Page, the Unique Reference attribute on the component is set to “HOME_PAGE” as well.



Navigating to the Home Page will give us the following result.



Adding a Record Condition is not possible on the Home Page, but the Start and End Date/Time can be used to show a notification only in the period when it needs to be displayed to a user.

Start Date Time ⓘ		End Date Time ⓘ	
Date	Time	Date	Time

Display Notification Translation

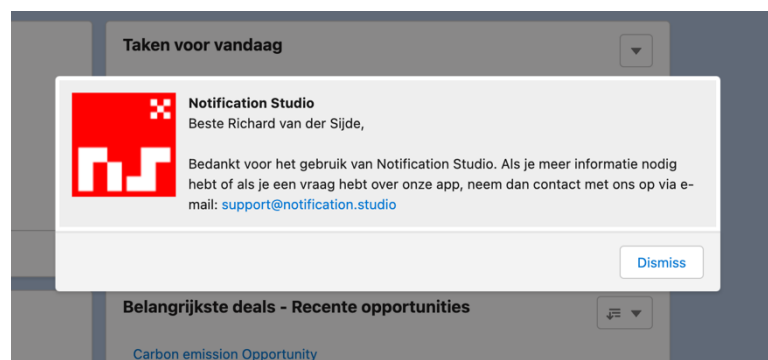
You can also translate notifications into languages that Salesforce supports on their platform. On the Display Notification Record Detail Page is a related list called Display Notification Translation. You can create records selecting a language and add a title and message in the selected language.

The screenshot shows the 'Display Notification Translation' form. On the left, there's a 'Language' dropdown set to 'Dutch' and a 'Display Notification' dropdown set to 'Home Page Notification Studio Message'. Below these are fields for 'Notification Title' and 'Notification Message'. The 'Notification Message' field contains a rich text editor with the text: 'Beste {!\$User.FirstName} {!\$User.LastName},
Bedankt voor het gebruik van Notification Studio. Als je meer informatie nodig hebt of als je een vraag hebt over onze app, neem dan contact met ons op via e-mail: support@notification.studio'. On the right, there's a 'Notification Preview' section showing the notification card with the Notification Studio logo and the translated text. Below the preview is a 'Field Reference Builder' section with instructions on how to use field references in the title or message.

The Translation edit page will show you the notification title and message from the parent Display Notification record to make translation easier. You only have to select a language and provide the translated title and message. That will result in the following Translation record detail page where the preview is now with the translated title and message.

The screenshot shows the 'Display Notification Translation' record detail page for record ID 'DNT-000000'. The 'Details' section on the left shows the 'Display Notification Translation Name' as 'DNT-000000', the 'Language' as 'Dutch', and the 'Notification Message' as the translated text: '<p>Beste {!\$User.FirstName} {!\$User.LastName},</p><p>
</p><p>Bedankt voor het gebruik van Notification Studio. Als je meer informatie nodig hebt of als je een vraag hebt over onze app, neem dan contact met ons op via e-mail: support@notification.studio</p>'. The 'Notification Preview' section on the right shows the notification card with the Notification Studio logo and the translated text: 'Beste Richard van der Sijde,
Bedankt voor het gebruik van Notification Studio. Als je meer informatie nodig hebt of als je een vraag hebt over onze app, neem dan contact met ons op via e-mail: support@notification.studio'. The page also includes 'Edit', 'Clone', and 'Delete' buttons at the top right.

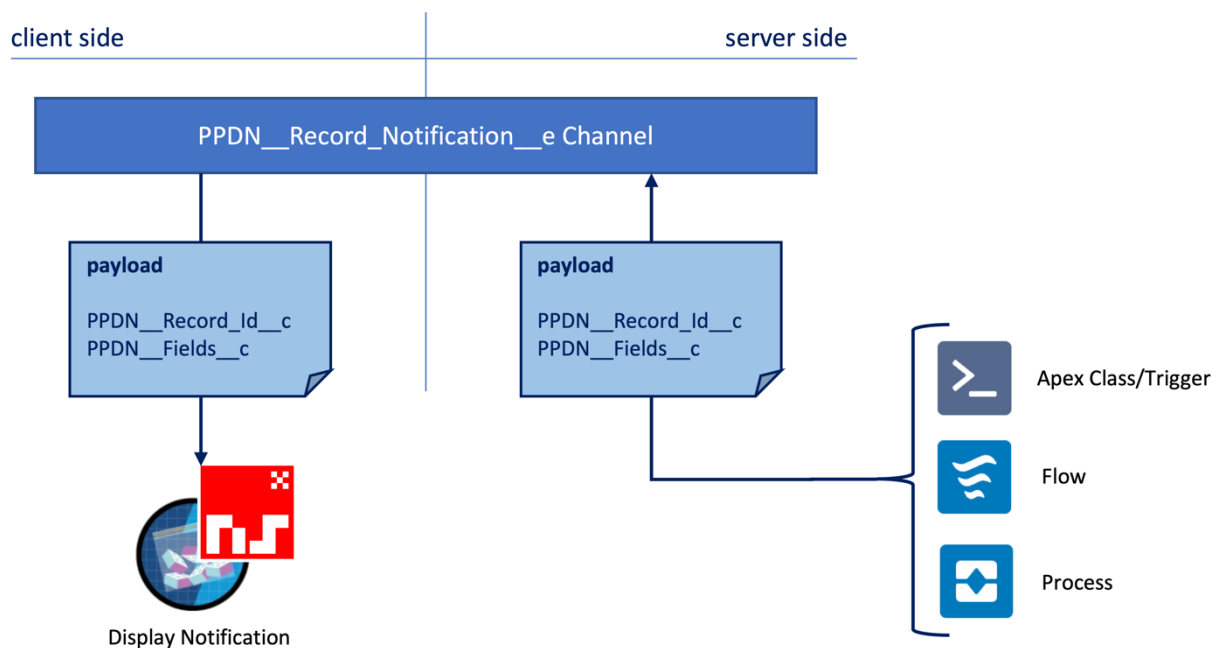
When changing my user's language to Dutch will show the Home Page notification in my own language.



Use Platform Events

The Notification Studio can be used to re-evaluate notifications on record detail pages. The Display Notification Lightning Component will subscribe automatically to the Record Notification Channel when a record condition is set or when record data is used. If the server-side transaction will set new record data which is also used in one of the notifications, the re-evaluation can be triggered by publishing a platform event where you supply the record Id and field names that have changed.

You will need to publish the Platform Event yourself using a Process, Flow or Apex code server-side. Below is a schematic overview of the Platform Events mechanism.



Something to think about

Toast Messages are not fully customizable

The toast message is not fully customizable. You can't for example choose every background color or use every icon. That's a limitation of the Salesforce Toast functionality.

Limitations with Salesforce mobile app

Record updates made in the Salesforce mobile app do not trigger the re-evaluation for the Display Notification component. The component will show the notifications on initialization.

Wrong Record Conditions can lead to an error message

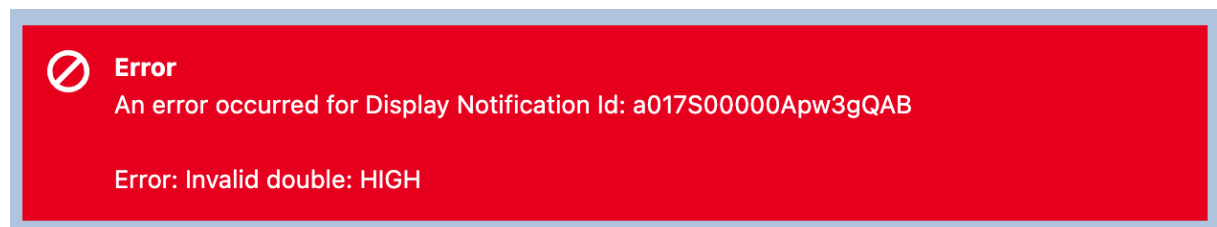
If you create a Display Notification and you add the record condition with a wrong field and value combination, it could cause an error on the page where you have the Display Notification component added to the Lightning Page.

If for example you would compare a numeric field with a text value, that would give the end-user an error while opening the Record Lightning Page where the error is related to.

If we would setup the Record Condition for the "HIGH" carbon emission created earlier in this manual and compare it to the actual Carbon Emission (kg/co2) field, which is a numeric field the record condition would look like this:

Record Condition		
Field API Name	Operator	Value ⓘ
Carbon_Emission__c	equals	HIGH

The outcome is that when the user visits the Opportunity record, then would be immediately faced with an error:



That's why it's always recommended to create the notifications you want to use in a sandbox and migrate the notification data with a data migration tool.