

## MJML, HTML, CSS EMAIL DEVELOPMENT WORKFLOW FOR HUBSPOT

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### Laughlin Email Team members

- Jenny Maglio - Marketing Automation, Associate Director - [jmaglio@laughlin.com](mailto:jmaglio@laughlin.com):
- Cathleen LaFond - Automation Specialist [-clafond@laughlin.com](mailto:-clafond@laughlin.com)

### What is HubSpot?:

HubSpot is a CRM that helps companies attract visitors to it's website. Laughlin uses it to send emails that will generate leads and communicate with it's customers. It is also used to develop and send emails to Laughlin Clients.

### History:

History: The Laughlin Email development strategy was created by Dariusz jarosz and perhaps other Dev's that I am not aware of.

I started developing emails for Laughlin when Dariuz left the company in Oct 2019.

**Laughlin Email Repo** - Repository for the final email that has been launched.

- [https://github.com/laughlin/lc\\_client\\_emails](https://github.com/laughlin/lc_client_emails)

### General Observations:

Email rendering is highly inconsistent across different client apps

Email rendering is occasionally inconsistent within the same client-app on different devices of the same type. Sometimes the bug is unresolvable.

## **MJML**

We use MJML to generate the HTML for our emails. Sometimes it is necessary to further handcode the rendered MJML before launching the final email. MJML stands for "Mailjet Markup Language" is a markup language. It is designed to make coding a responsive email easier. It has a semantic syntax that makes it simple and straightforward.

## **Email Design:**

The graphic designers are currently creating desktop-view-comps only. These comprehensive layouts show the relative positions of text and graphics. mobile-view-comps are NOT provided to the developer therefore, the developer can determine the best-fit mobile view and then present it to the project manager for approval.

Sometimes the graphic/UI designer will create a comp that is out of the ordinary and would be too difficult or impossible to create within the budget of time available. In those cases a design change would be necessary.

## Laughlin Developed Documentation Links

MJML, BRAZE, HUBSPOT AND PARDOT – HTML EMAIL PROGRAM  
KNOWLEDGE SHARING

[https://laughlinconstable.sharepoint.com/:w:/s/MarketingAutomationCRM/ETbOzwJ1lq5lI8pveAQTxpEB\\_NvillnKlnbtQc-n6velpQ?e=DBs0NH](https://laughlinconstable.sharepoint.com/:w:/s/MarketingAutomationCRM/ETbOzwJ1lq5lI8pveAQTxpEB_NvillnKlnbtQc-n6velpQ?e=DBs0NH)

Best Practices Book. **READ THIS ENTIRE DOCUMENT**

[https://laughlinconstable.sharepoint.com/:w:/r/sites/MarketingAutomationCRM/\\_layouts/15/Doc.aspx?sourcedoc=%7B5FA3FE1B-6549-46D5-A766-6FFD60B09242%7D&file=James\\_Bond\\_BPB.docx&action=default&mobileredirect=true&CID=C44C0948-5CDA-43BB-B99A-46336BB1216A&wdLOR=cB1323621-8714-42B0-9D3C-CD3A1B38B4E8](https://laughlinconstable.sharepoint.com/:w:/r/sites/MarketingAutomationCRM/_layouts/15/Doc.aspx?sourcedoc=%7B5FA3FE1B-6549-46D5-A766-6FFD60B09242%7D&file=James_Bond_BPB.docx&action=default&mobileredirect=true&CID=C44C0948-5CDA-43BB-B99A-46336BB1216A&wdLOR=cB1323621-8714-42B0-9D3C-CD3A1B38B4E8)

Best Practices Additional Notes - **READ THIS ENTIRE DOCUMENT**

<https://laughlinconstable.sharepoint.com/:w:/s/MarketingAutomationCRM/EUUb1UPjb3pGsJwL3JvvfmQBSxGpVpeIAfJH9fRMdwkbpw?e=9ZJv8D>

MAC Process Overview - Email Focused

[https://laughlinconstable.sharepoint.com/:b:/s/MarketingAutomationCRM/EbmVC2gPoFKl6rQ7hvoW1wBaX\\_2hp2443fXLpRryU\\_UzQ?e=XeKUQj](https://laughlinconstable.sharepoint.com/:b:/s/MarketingAutomationCRM/EbmVC2gPoFKl6rQ7hvoW1wBaX_2hp2443fXLpRryU_UzQ?e=XeKUQj)

**VIDEO:** Fundamentals Of HUBL Scripting Language

HubSpot Markup Language, aka **HubL**, is the primary syntax used throughout the HubSpot CMS. **HubL** is a HubSpot-specific programming language based on a Python templating engine known as Jinja.

<https://app.hubspot.com/academy/2112947/tracks/34/353/1917>

## Laughlin Email Test Accounts

Testing email box accounts logins

- lcqatest1@gmail.com – [REDACTED]
- usertesting@laughlin.com - [REDACTED]
- lcqatest@outlook.com – [REDACTED]
- lcqatest1@yahoo.com – [REDACTED]

## Laughlin Remote Test Servers

To test for Outlook 2010 or 2013 or 2016 (Remote Desktop Connection - Windows)

-----  
REMOTE DESKTOP

Outlook 2010

- Server: [REDACTED]
- PASS: [REDACTED]
- USER: [REDACTED]
- EMAIL: [REDACTED]

-----  
REMOTE DESKTOP

Outlook 2013

- Server: [REDACTED]
- PASS: [REDACTED]
- USER: [REDACTED]
- EMAIL: [REDACTED]

-----  
REMOTE DESKTOP

Outlook 2016

- Server: [REDACTED]
- PASS: [REDACTED]
- USER: [REDACTED]
- EMAIL: [REDACTED]

## **Step 0 - review HubSpot documentation**

**Video:** A developer's tour of the HubSpot CMS Design Manager and Page Editor  
<https://app.hubspot.com/academy/2112947/lessons/373/2038>

HubSpot Markup Language

HubL is the templating language of the HubSpot CMS.

<https://developers.hubspot.com/docs/cms/hubl>

HubL tags, to give your content creators the ability to edit areas of the page.

<https://developers.hubspot.com/docs/cms/hubl/tags>

HubSpot templates can use a host of predefined variables that can be used to render useful website and email elements.

<https://developers.hubspot.com/docs/cms/hubl/variables>

Set up your CAN-SPAM email footer information (Optional Reading)

[https://knowledge.hubspot.com/email/can-i-customize-my-can-spam-email-footer?\\_ga=2.214300436.2078706321.1600886992-755714655.1570572086](https://knowledge.hubspot.com/email/can-i-customize-my-can-spam-email-footer?_ga=2.214300436.2078706321.1600886992-755714655.1570572086)

## Step 1 - Code the email

There are 2 ways to create the Email: Hand-coded -or- Drag&Drop

### Hand-coded

- Upload your compressed images into Hubspot. and use their paths in your local code.
- Create email markup locally in MJML or other tools
- Perform your “initial device and client testing”
- Paste HTML into Hubspot then replace any necessary hard coded elements with HubL tags (see below).
- Update all <img> Tags correct for (“**IOS Alt Text Bug**” see below).

The following link explains the-step-by-step process of how to hand code a HubSpot template.

Build a custom coded template

<https://knowledge.hubspot.com/cos-general/build-a-custom-coded-template-in-hubspot>

Email template markup

[https://developers.hubspot.com/docs/cms/building-blocks/templates/email-template-markup?\\_ga=2.214249620.2078706321.1600886992-755714655.1570572086](https://developers.hubspot.com/docs/cms/building-blocks/templates/email-template-markup?_ga=2.214249620.2078706321.1600886992-755714655.1570572086)

Reports dashboard

app.hubspot.com/reports-dashboard/2112947/view/2951698

Contacts Conversations Marketing Sales Service Automation Reports Asset Marketplace

Web Analytics Dashboard

Filter dashboard

Sessions

Date range: In the last 30 days

200

100

0

8/25/2020 8/27/2020 8/29/2020 8/31/2020 9/2/2020 9/4/2020 9/6/2020 9/8/2020 9/10/2020 9/12/2020 9/14/2020

Design Tools

Files

Click here to goto templates page

Click here to goto upload images page

Traffic Metrics

Date range: In the last 30 days

SESSIONS

1,056

▲ 47.9%

% NEW SESSION

89.11%

▼ 7.12%

Engagement Metrics

Date range: In the last 30 days

BOUNCE RATE

51.52%

▼ 10.72%

PAGE VIEWS / SESSION

2.95

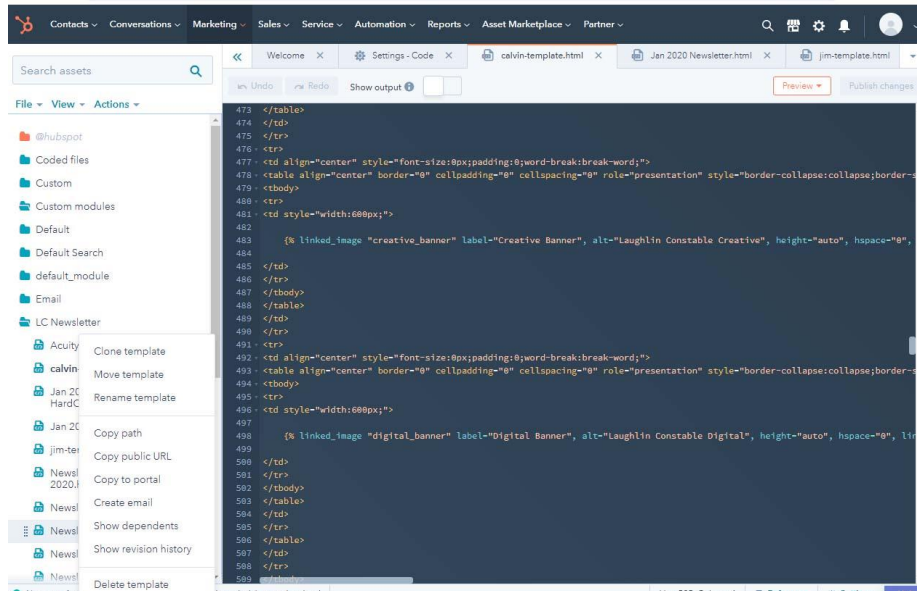
▲ 0.04%

AVERAGE SESSION LENGTH

Help

https://app.hubspot.com/design-manager/2112947

## Create/Edit Template Screen



### IOS Alt Text Bug

There is a bug on IOS devices that prevents the alt text from being visible.

### Hand Code Example

To fix this issue, ensure that all your `<img>` tags have the following in-line css included in the style property.

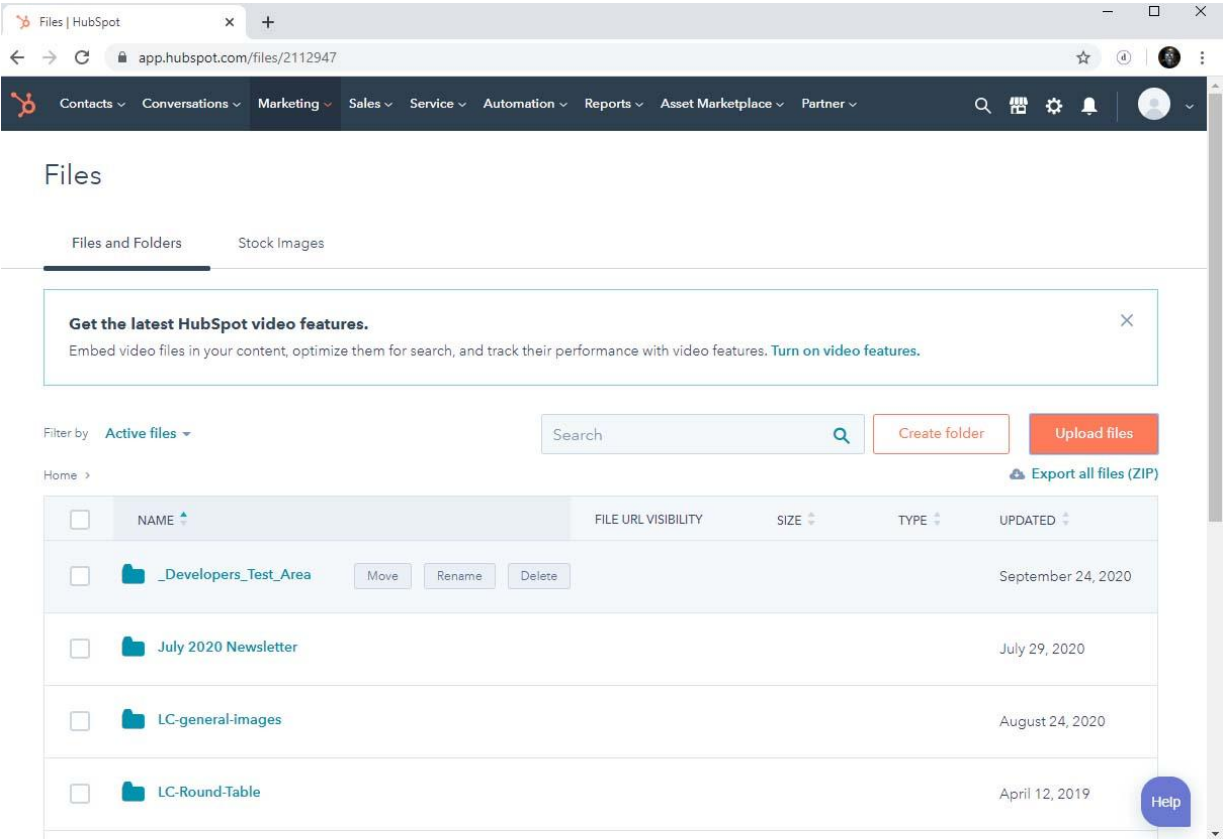
`"font-size:13px;color:#YOUR COLOR GOES HERE;"`

Also, if your images are required to be coded using Hubl then here is an example for how it could look.

```
{% linked_image "footer_logo" label="Laughlin Footer Logo", alt="Laughlin Constable", height="auto", hspace="0", link="https://www.laughlin.com", src="https://cdn2.hubspot.net/hubfs/2112947/LC-general-images/logo-footer.jpg?noresize", style="border:0;display:block;outline:none;text-decoration:none;height:auto;width:h:100%;font-size:13px;color:#YOUR COLOR GOES HERE;", width="40" %}
```



# Image Upload Screen 1













# Image Upload Screen 2

Filter by **Active files**

Search

Create folder

Home

<input type="checkbox"/>	NAME	FILE URL VISIBILITY	SIZE	TYPE
<input type="checkbox"/>	 _Developers_Test_Area			
<input type="checkbox"/>	 July 2020 Newsletter			
<input type="checkbox"/>	 LC-general-images			
<input type="checkbox"/>	 LC-Round-Table			
<input type="checkbox"/>	 LC-welcome-series			
<input type="checkbox"/>	 Newsletter Images			
<input type="checkbox"/>	 1200x600_with_copy	Public	177 KB	jpg
<input type="checkbox"/>	 46333_LC_2019Email_June_AC_ImageOnly	Public	344 KB	jpg
<input type="checkbox"/>	 46333_LC_2019Email_June_AC_imageonly_r02	Public	270 KB	jpg
<input type="checkbox"/>	 46333_LC_2019Email_September_AC_r04_ImageOnly	Public	209 KB	jpg

<< First < Prev **1** 2 3 4 5 Next > Last >>

## File details



46333\_LC\_2019Email\_June\_AC\_ImageOnly

Updated  
Jun 13, 2019 12:06 PM

Dimensions  
1200 x 581 px

File size  
344 KB

File type  
jpg

File URL visibility

**Public**

File URL by domain

f.hubspotusercontent40.net

[Open in a new window](#) [Copy URL](#)

File usage

This file is not used anywhere.

File ID  
10468158194

Replace

Clone and edit

More

## Drag & Drop - Not suitable for highly advanced email designs

- Create the HTML code using HubSpot's Drag and Drop code builder.
- Update all images inline css to correct for ("**IOS Alt Text Bug**" see below).

Video: Welcome to the design manager

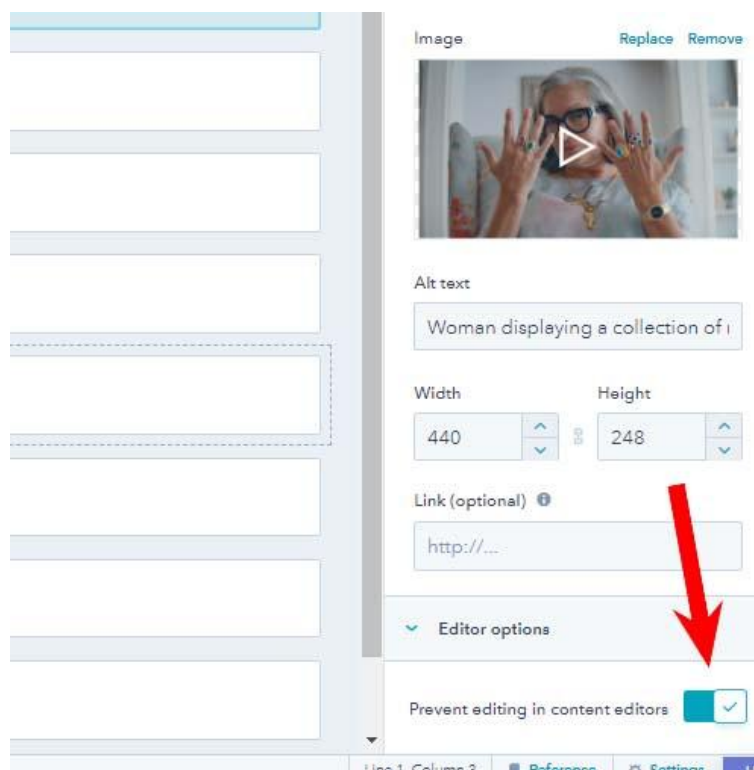
<https://app.hubspot.com/design-manager/2112947/welcome>

Creating Custom Drag&Drop Email Templates [Step-by-Step Guide]

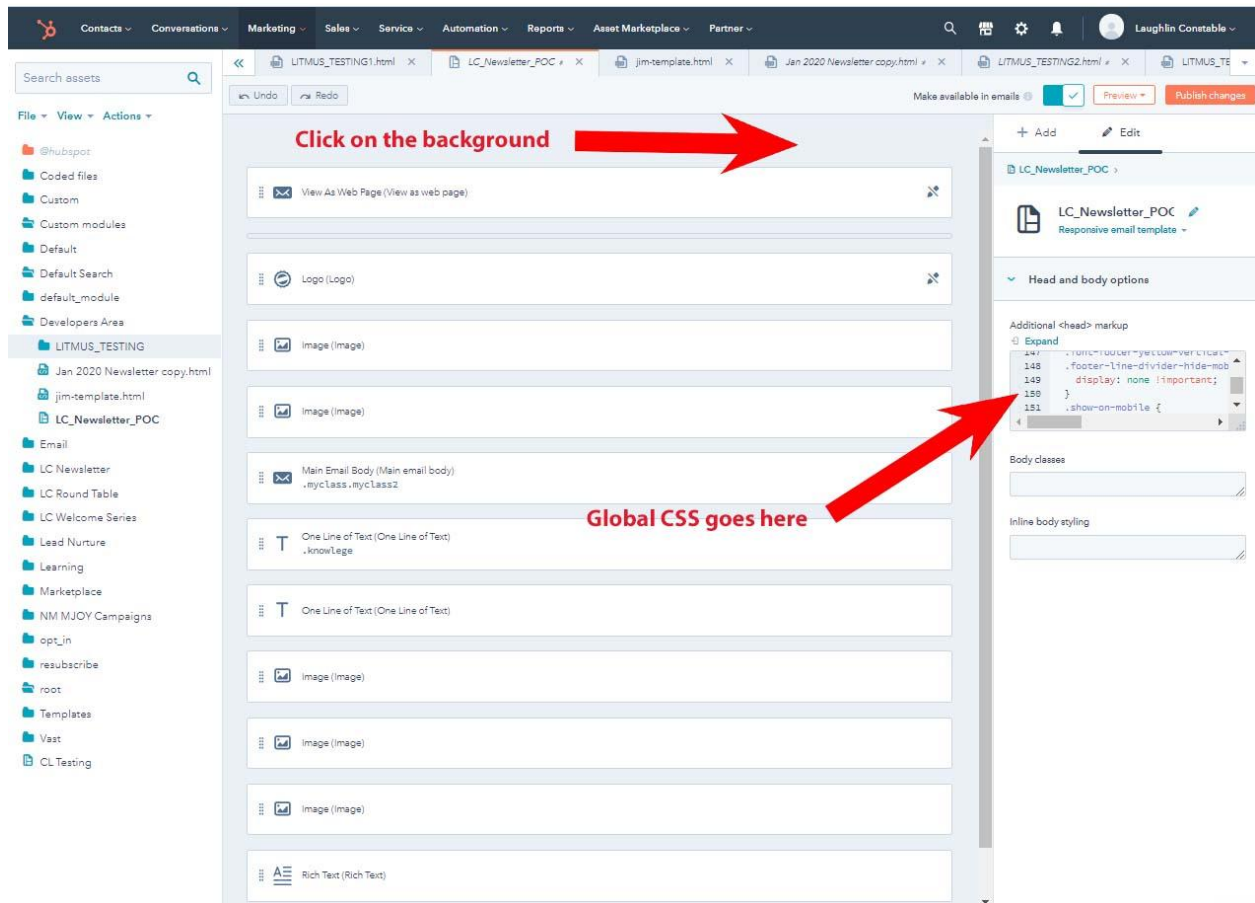
<https://uhurunetwork.com/hubspot-email-templates/>

Create page, email, and blog templates in the layout editor

<https://knowledge.hubspot.com/cms-general/create-page-email-and-blog-templates-in-the-layout-editor#create-a-new-template>

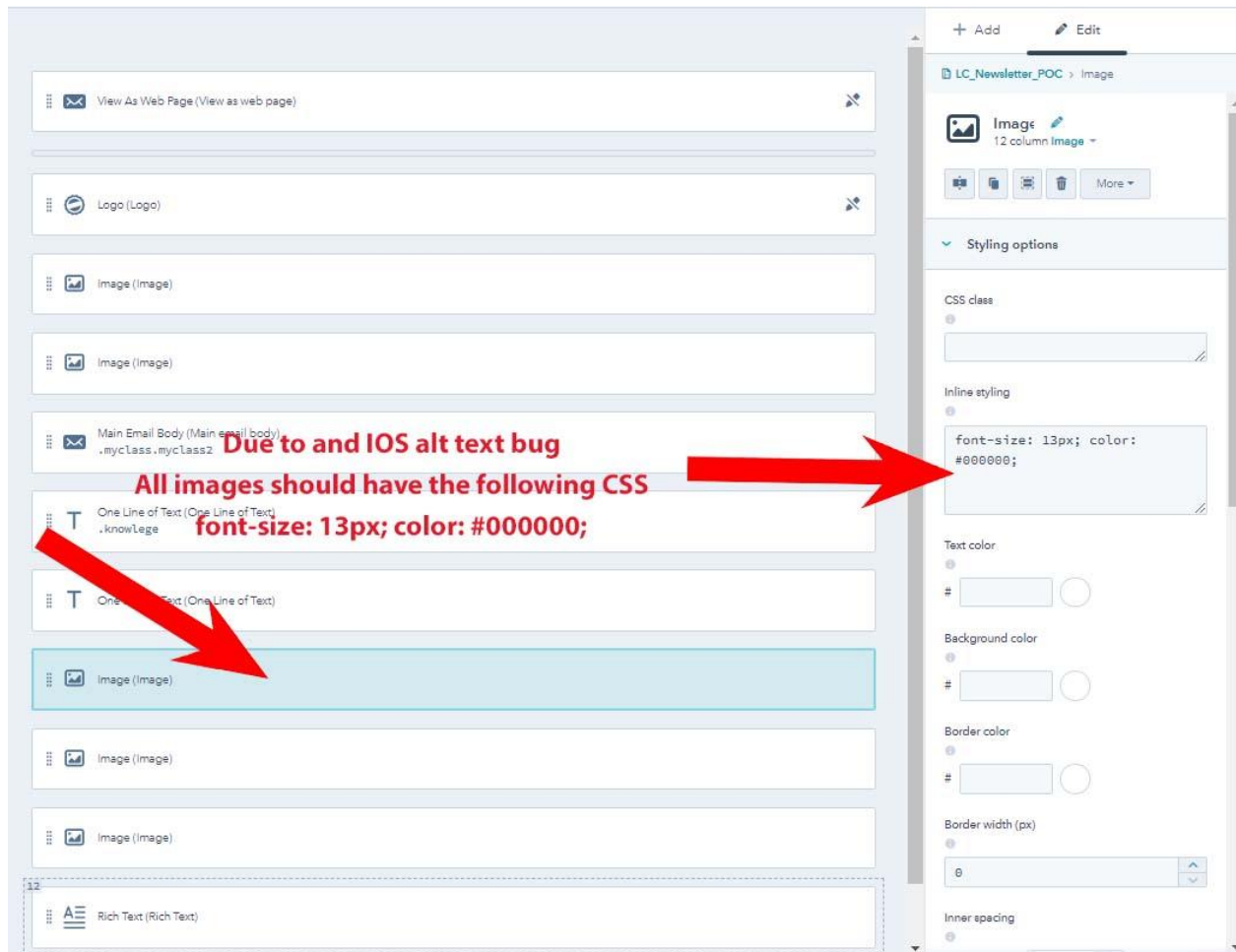


By Default all Drag & Drop modules will be editable in the edit email interface.



Selecting the background and then adding “<style>” tags that contain CSS to the “additional <head> markup” properties box will insure that the CSS added there will be applied to any classes in the properties boxes of any component.

Also any CSS added to the “additional <head> markup” will be applied to any raw HTML source code added to the email.



## **IOS Alt Text Bug**

There is a bug on IOS devices that prevents the alt text from being visible.

## **Drag&Drop Example**

To fix this issue, ensure that every image's in-line css property includes the following css.

“font-size:13px;color:#YOURCOLOR;”

## You can add raw HTML To your Drag&Drop email template

The image shows a drag-and-drop email template editor. The main workspace on the left contains several blocks: 'View As Web Page (View as web page)', 'Logo (Logo)', two 'Image (Image)' blocks, 'Main Email Body (Main email body) .myclass .myclass2', two 'One Line of Text (One Line of Text)' blocks, three more 'Image (Image)' blocks, and a 'Rich Text (Rich Text)' block at the bottom. A red arrow points from the text 'Add complex HTML here' to the 'Rich Text (Rich Text)' block. Another red arrow points from the text 'Place the mouse here And then Click' to the 'Rich Text (Rich Text)' block. A third red arrow points from the text 'Add complex HTML here' to the 'Rich Text content' preview in the right-hand panel. The right-hand panel has tabs for '+ Add' and 'Edit'. Under the 'Edit' tab, there are settings for 'LC\_Newsletter\_POC > Rich Text', including 'Outer spacing' controls and a 'Default content' section. The 'Rich text content' preview shows a newsletter layout with a yellow header, navigation links, and contact information. Below the preview is an 'Editor options' section with a 'Prevent editing in content editors' toggle.

**Add complex HTML here**

**Place the mouse here  
And then Click**

**Rich text content**

**Editor options**

Prevent editing in content editors





**Add Update  
your code Here**

Click here to save  
your code

Cancel and close



# PREVIEW of your template

LC\_Newsletter\_POC

Viewport preset: Responsive ▾ Height: 1,088 ▴ ▾ Width: 1,052 ▴ ▾ Zoom: Fit to window ▾ Rotate 90°

Not rendering correctly? View this email as a web page [here](#).

After 42 years of winning clients, nurturing relationships and making magic, we've definitely learned a thing or two about how to show some love to the RFP process.

In that time, we've learned that transparency, chemistry and collaboration are the three not-so-mystical ingredients that, when applied with the care and attention our partners deserve, make for a beautiful union (and really cool work).

KNOWLEDGE DROPPED

THIRSTY FOR MORE?

## Step 2 - testing

- Perform personal & Laughlin device testing
  - a) Test all supported client/device combinations
    - i) see BestPracticed document for a complete list
- Perform testing using (“**HubSpot email tester**” see below)

### Initial device and client testing

The following devices and clients should be used to test the email while the developer is creating the code.

- Iphone
  - Gmail App
  - Native App
- Android
  - Gmail App
  - Native App
- Laptop/Desktop
  - Outlook 365 App - most current version
  - Gmail (Browser)

**Note: For a comprehensive list of all clients, browsers and devices that we support please refer to the “**EMAIL BEST PRACTICE BOOK**”**

### Laughlin owned device testing

- 1) Android S9(Not sure of model)
- 2) iPhone (7-plus)
- 3) iPhone (6)

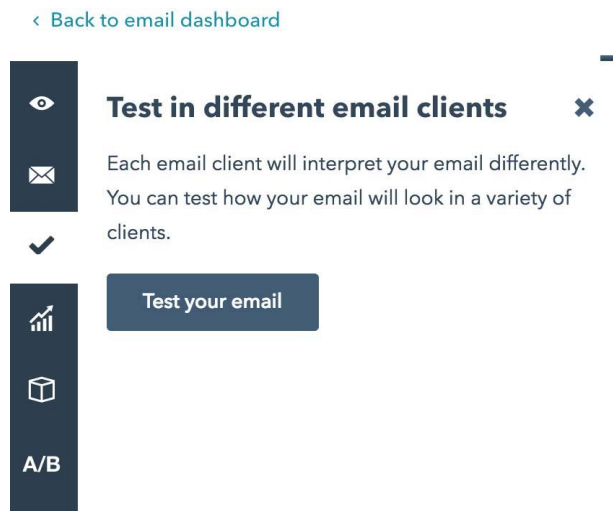
- 4) iPad (Air)
- 5) Assigned work laptop
- 6) Remote Servers

## **HubSpot email Tester**

HubSpot has an integrated Litmus email tester. This tester is accessed through the email editor. Use the email tool (in the main menu under Marketing > Email) to create emails from your templates and open the email tester in the left toolbar of the editor.

How to Preview Your HubSpot Emails in 30 Different Inboxes

[https://blog.hubspot.com/customers/how-to-preview-your-emails-in-30-different-inboxes?hubs\\_signup-url=developers.hubspot.com%2Fdocs%2Fcms%2Fmarketplace-requirements%2Femail-template-requirements&hubs\\_signup-cta=null&\\_ga=2.209525905.2078706321.1600886992-755714655.1570572086](https://blog.hubspot.com/customers/how-to-preview-your-emails-in-30-different-inboxes?hubs_signup-url=developers.hubspot.com%2Fdocs%2Fcms%2Fmarketplace-requirements%2Femail-template-requirements&hubs_signup-cta=null&_ga=2.209525905.2078706321.1600886992-755714655.1570572086)



## Test in different email clients

Each email client will interpret your email differently. You can test how your email will look in a variety of client

Email apps and devices

View results

We've selected 4 popular email clients for this test. Feel free to customize your test by adding or removing customize the contact you are previewing as. And remember, this is only a test and won't send any email to

Select a contact

### Chrome

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> AOL Mail (Chrome)               | <input type="checkbox"/> Comcast (Chrome)          | <input type="checkbox"/> freenet.de (Chrome)  |
| <input type="checkbox"/> Gmail (Chrome)                  | <input type="checkbox"/> GMX.de (Chrome)           | <input type="checkbox"/> Mail.ru (Chrome)     |
| <input checked="" type="checkbox"/> Outlook.com (Chrome) | <input type="checkbox"/> Outlook.com Dark (Chrome) | <input type="checkbox"/> T-Online.de (Chrome) |
| <input type="checkbox"/> Yahoo! Mail (Chrome)            |  |   |

### Explorer

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> AOL Mail (Explorer)    | <input type="checkbox"/> Comcast (Explorer)     | <input type="checkbox"/> freenet.de (Explorer) |
| <input type="checkbox"/> Gmail (Explorer)       | <input type="checkbox"/> GMX.de (Explorer)      | <input type="checkbox"/> Mail.ru (Explorer)    |
| <input type="checkbox"/> Outlook.com (Explorer) | <input type="checkbox"/> T-Online.de (Explorer) | <input type="checkbox"/> Web.de (Explorer)     |

### Firefox

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> AOL Mail (Firefox)    | <input type="checkbox"/> Comcast (Firefox)          | <input type="checkbox"/> freenet.de (Firefox)  |
| <input type="checkbox"/> Gmail (Firefox)       | <input type="checkbox"/> GMX.de (Firefox)           | <input type="checkbox"/> Mail.ru (Firefox)     |
| <input type="checkbox"/> Outlook.com (Firefox) | <input type="checkbox"/> Outlook.com Dark (Firefox) | <input type="checkbox"/> T-Online.de (Firefox) |
| <input type="checkbox"/> Yahoo! Mail (Firefox) |   |  |

### Android 5.1

- ☐ Android 5.1

### Android 6.0

## Litmus test results

### iOS 10.3



iPhone 6s

### Firefox



Gmail (Firefox)



GMX.de (Firefox)



Office 365 (Firefox)



Mail.ru (Firefox)

### Chrome



Outlook.com (Chrome)



Mail.ru (Chrome)



GMX.de (Chrome)



Office 365 (Chrome)

### Android 6.0



Gmail App

### Explorer



GMX.de (Explorer)



Office 365 (Explorer)

### **Step 3 - Internal team review**

Inform the Marketing Specialist that the email is ready for the internal team to review and the template location inside of hubspot..

After review The team might request updates to the email. If so then complete the change request and **repeat step 11.**

### **Step 4 QA Testing and Debugging**

Once the internal team has reviewed the email and is satisfied, they will send it to the QA department for comprehensive device/client testing.

Any bug found will be for a specific device/client combinations

You should then fix any bugs reported. Then test then on the specific device/client where the bug was reported. Then you should **repeat step 3 & 4**

**If no more bugs are found, then the Internal team will inform you that the email is completed and will soon be approved.**

### **Step 5 Upload it into REPO.**

After the email is officially approved add it to the repo.