

## How to Leverage Custom Code to Uplevel Your Event Website

This is a companion piece to the Cvent CONNECT Hybrid 2021 Session “How to Leverage Custom Code to Uplevel Your Event Website” and will provide an overview of the topics discussed during that session with more detail in some areas. For more content and visuals check out the session recording on-demand on the Event Website.

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### What are Code Widgets?

Understanding what code widgets are and how they function will make utilizing them a lot easier.

#### Definition

Code Widgets are similar to other widgets in how they behave in the site designer as they can be moved, duplicated, and follow column rules. The difference is their content is made up of user-defined CSS, HTML, and JavaScript. This provides an extensive array of design opportunities and gives Code Widgets the power to elevate an event website, improving invitee experiences and engagement.

#### Widgets vs Snippets

There are two coding features available in the Event Registration product, but they offer different functionalities and satisfy different use cases. This is best explained in our article [Flex Coding Options](#). But here's a brief explanation:

- Code Widgets
  - Allows CSS, HTML, and JavaScript
  - Embedded on and rendered on the page itself
  - Used primarily for adding custom designs and content
- Code Snippets
  - Only allows JavaScript
  - Runs in the background when individual pages are first loaded
  - Used primarily for implementing web analytics

#### Code Widget as iFrame

Code Widgets are added to the website page within iFrames. This means that the content added within the widget cannot interact with other content on the page, and has the following implications:

- Styles and Scripts must be added to the Code Widget
- Responsiveness is derived from iframe/widget width, not page width
- Code Widget Content cannot harm other website content

## Design Ideas for Code Widgets

There are so many possibilities for what code widgets can create that it can be overwhelming. Here are a few methodologies that can provide some direction and inspiration to the design process.

### Replacing Existing Widgets

Sometimes there are modifications that you wish you could do to existing widgets in Flex. You may want a widget to take up less room on a page or display data that you don't have the option to by default. Code Widgets can help compensate for that by creating customized versions of some widgets such as:

- Countdown Timer
- Image Slideshow
- Agenda-at-a-Glance

The limitation to be aware of here is that Code Widgets don't currently have access to Cvent databases. Unlike other widgets, where data is pulled dynamically, all the data that code widgets will likely have to be added manually. So widgets with more static data, like the above examples, are easier to replicate.

### Embeddable Content

Rather than creating content from scratch, it's often easier to embed a visual or experience that already exists. There are numerous tools and applications that will provide ways to embed content onto websites, and here are just a few examples of how they can be used:

- **Maps** – aside from showing the location of your event, it's often helpful to show other locations as well. Many map applications, like Google and Apple maps, provide methods to embed such maps onto websites.
- **PDFs** – rather than providing document download links, it may be beneficial to instead show a document on the website itself. By using some simple code, you can embed a PDF onto your website that will utilize the browser's default PDF viewer. Step by step instructions can be found in the article [Embedding PDFs on a Webpage](#).
- **Forms and Apps** – there are a wide variety of third-party products that allow you to build custom experiences on their application and then embed that experience via a block of code. These can range from simple questionnaires to invitation forwarding to even digital storefronts. Often times the only interaction with code is copy-and-pasting it into your Code Widget.

### Organizing Information

Code Widgets can be used to help organize and display your event information in various ways while also adding some interactivity to your site.

- **Tables** – often used to help organize information in a clean and easily readable format, a common use is for displaying a schedule.

- **Accordions**—a popular way to display information in a clean and concise way. They are often used for FAQs where you see the question and then click to display the answer.
- **Tabs**—handy for displaying larger chunks of content without having to take up a ton of space on your page.

## Adding the WOW Factor

Code Widgets are also great for adding that additional pizzaz to make your website pop. Besides adding to the look of the site, they are also useful for aiding in navigation and to call attention to information you don't want your attendees to miss.

The following are all ways to change text or images when a user pauses over them using a cursor:

- Hover States
- Flip Content
- Popups

**Directing User Attention**—Dynamic effects are power fool tools for drawing a user's attention, so use them to direct focus to what is most important. Avoid making websites that are too "busy", which can confuse users and ultimately have a negative affect on their experience.

## Tips and Tricks

Sometimes code widgets may seem like a pool filled with so many possibilities it may be a bit daunting to dive in. Here we'll talk about some tips and tricks to help you learn to swim, and when you're ready, to make your way to the deep end.

## Best Practices

During the Code Widget implementation process, there is opportunity to follow some best practices to help make it smoother:

- **Ideation**—Designing your idea
  - **Inspiration**—Look for websites and applications that have designs or content you like. If there is a specific piece of content you want, doing a pointed search can yield a variety of examples of pull from. Make sure to check out [Cvent's Visual Showcase](#) for ideas of what you can do.
  - **Base Code**—Online resources are helpful with providing code to start. There are plenty of sites which offer code to use, and will often even explain it and show how to use it. Also, if you see websites you like, you can try using your browser's developer tools to see how it was implemented and try using that code.
- **Development**—Writing your code
  - **IDEs**—Using an Integrated Development Environment (IDE) can help the development process, especially for new developers. There are plenty to choose from, at a range of price

points, and have a variety of features. These can help check for errors, pull from code libraries, and organize code easily, as just a few examples.

- **Test Often** – It's often easier to find errors and make fixes when you're dealing with smaller chunks. So rather than building out the complete design before testing, it's better to test in increments.
- **Integration** – Adding your Code Widget
  - **Device Preview** – It's always better if invitees can have great experiences no matter what device they're using. Therefore, you'll want to make sure your Code Widget looks right on different screen sizes. Using the device preview feature in Flex's site designer can help test of different screen sizes in the context of your website.
  - **Browser Compatibility** – Along with different devices, invitees also use different browsers. Different browsers have unique compatibility with certain code, so you'll want to make sure your code checks out. Our websites are compatible with Firefox, Chrome, Microsoft Edge, and Safari, so those browsers should be tested for.

## Online Resources

The following is a small list of some useful websites. Keep in mind that Google is your friend, and there are a lot of resources available.

- **Content Generation** – these sites are places where you can go to generate code that you can use for your site:
  - [Rich Text Generator](#) – the basic interface is like the tools you see in Word or other word processing software, but it will convert your work to HTML code.
  - [Table Generator](#) – allows you to make a table and then it will generate the HTML code for you.
  - [Accordion Generator](#) – allows you to create accordion text boxes. Accordions are often seen used for FAQs on sites. The site will then generate the appropriate HTML code for you to use.
  - [Tab Generator](#) – allows you to create tabs and then generate the HTML code needed.
- **Learn to Code** – if you're new to code it is recommended that you take some time to learn some basics about HTML. This will help you understand what you're seeing from the content generators as well as be able to make modifications and troubleshoot issues you might see with the code:
  - [W3 Schools](#)
  - [HTML.com](#)
  - [Quackit](#)
  - [Codecademy](#)
  - [Sololearn](#)
  - [freeCodeCamp](#)

- **Code Libraries** – these are great resources that contain tons of HTML code snippets for various things such as hover states, tabs, accordions, forms, timelines, and more. These are great places for inspiration as well:
  - [W3 Schools](#)
  - [Quackit](#)

## Future of Coding

We are continuing to explore more ways to create unique website experiences and have more coding features on their way.

### Code Widget Enhancements

We are exploring how Code Widgets can be a more scalable solution with more management features and have more functionality by hooking into APIs. If you're interested in those features or have more ideas, you can reach out to Cvent representative to learn more or post your ideas in the Cvent Community.

### CSS Classes

We also have a new coding feature right around the corner, CSS Classes. This feature will allow users to adding custom CSS classes to their website, and apply those classes to individual widget styling, or section and theme text styles. This will allow users to have more flexibility and control over the styling of their website. More information on this feature is coming soon.

## Key Takeaways

If there's anything to take away from this session and this document its these three things:

1. Code Widgets are a goldmine of design opportunity and can provide value for users of all experience levels and events of all shapes and sizes.
2. Online resources can make Code Widgets more approachable by reducing the need to code, teaching how to code, and providing countless examples and sources of inspiration.
3. More coding features are on their way which will extend the usability of code widgets and offer new ways to use code for design.