

HeartFlow Delivers Documentation in 12 Languages Up to 10 Times Faster Using Content Experience Management and Translation Solutions from MadCap Software



10x Increase in Efficiency



[heartflow.com](http://heartflow.com)



Mountain View, CA

**Industry:** Software & Technology



## Benefits

### Rapid Access to Information

Interactive, topic-based HTML documentation and context-sensitive Help created with MadCap Flare is linked to HeartFlow's cloud-based apps and lets customers quickly get the answers they need.

### Faster Content Creation

HeartFlow delivers its documentation up to 10x faster by taking advantage of content re-use, scripts, and conditional tags in MadCap Flare.

### Cost-effective Translation

HeartFlow cut the company's time and costs required to produce its documentation in 12 languages, since turning to MadTranslations for end-to-end translation services.

## Solutions



MadCap Central for content management, collaboration and analysis

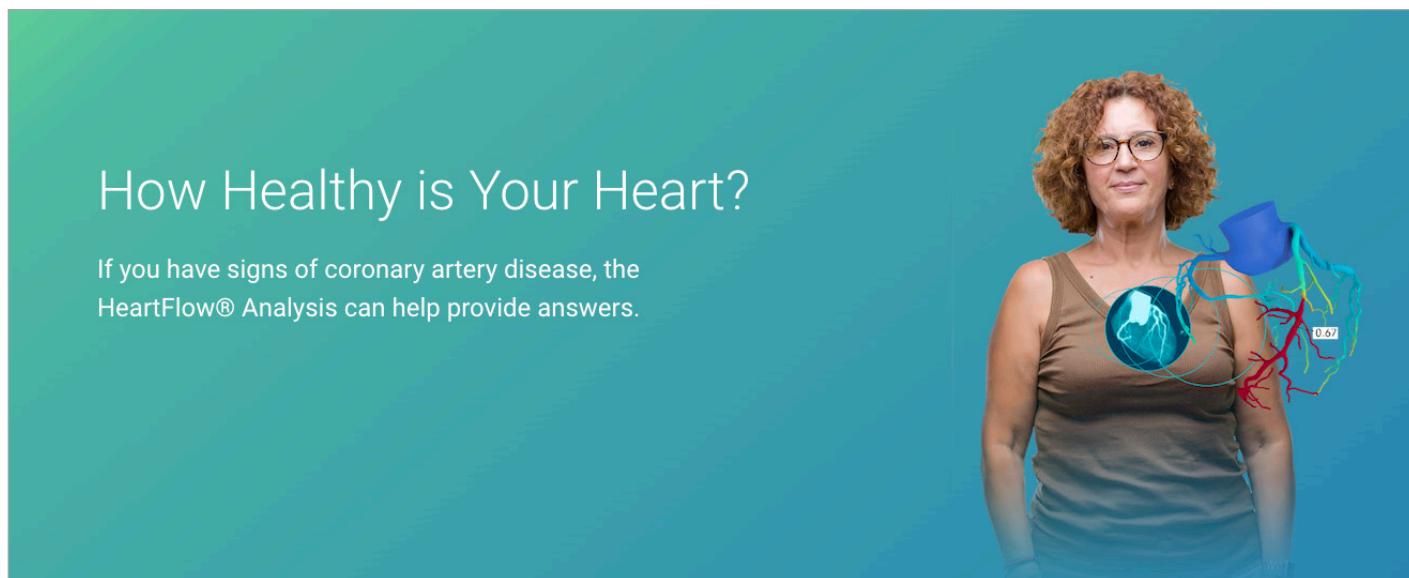


MadCap Flare native XML single-source, multi-channel content authoring software

# HeartFlow, Inc.

HeartFlow, Inc. is revolutionizing the care of cardiovascular disease—the number one killer of men and women worldwide. The company's non-invasive cardiac test takes standard coronary CT scans and uses artificial intelligence-powered algorithms to create a personalized, color-coded 3D model of a patient's coronary arteries, and HeartFlow's proprietary algorithms calculate functional information to describe the blood flow through the arteries of the model.

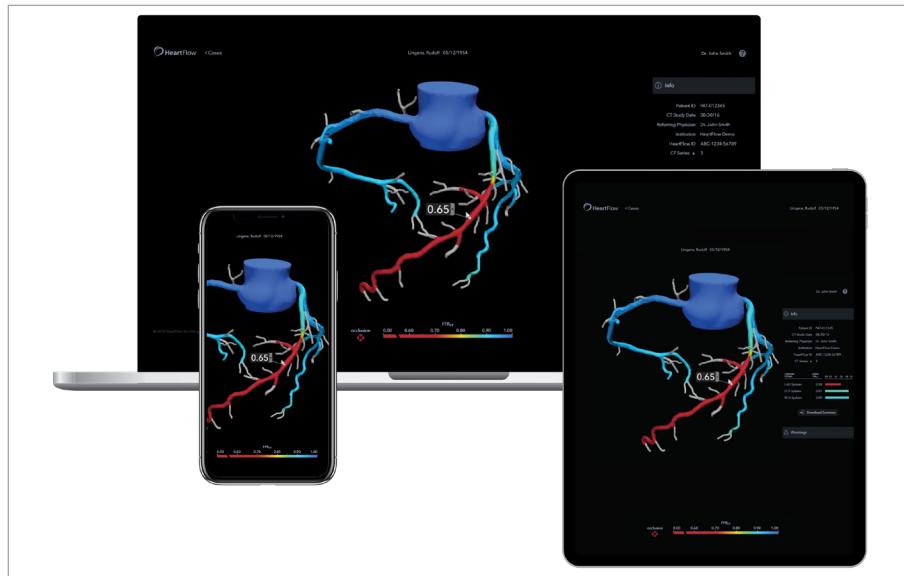
Physicians use HeartFlow's products (i.e., a HeartFlow Analysis) to make better care decisions for their patients. Since becoming commercially available in 2011, the HeartFlow FFR<sub>CT</sub> Analysis has been used for more than 180,000 patients and adopted at 725-plus hospitals worldwide, including 80% of the top 50 United States heart hospitals.



How Healthy is Your Heart?

If you have signs of coronary artery disease, the HeartFlow® Analysis can help provide answers.

To help ensure that healthcare professionals are correctly using its products, the medical technology (MedTech) company relies on content experience management (CxM) solutions from MadCap Software to deliver modern online documentation in 12 languages. Today, these solutions include MadCap Flare for single-source authoring, MadCap Central for analytics and collaboration, and MadTranslations for localization.



HeartFlow uses MadCap Flare to deliver the IFU content for the HeartFlow Analysis as interactive, topic based HTML5 output.

## Closing the Content Gap

As a MedTech company, HeartFlow must provide regulatory documentation as part of the instructions for use (IFUs). This content lists country-specific details including symbol definitions, product classifications, statements of compliance, a CE mark (for applicable countries), and the correct unique device identifier (UDI). Other critical content includes supporting clinical data, product warnings and precautions, and more. The IFUs are tightly integrated with HeartFlow's cloud-based products; the Web Application IFU and Mobile Application IFU explain how to use the product from a personal computer's web browser or mobile device, respectively.

Initially, the company delivered IFUs for the HeartFlow Analysis by creating documents in Microsoft Word and publishing them as PDFs. As a result, the HeartFlow team had to

manually update content and generate fresh PDFs for every product release, which occurs monthly. If there were no feature updates, the IFUs still had to be updated because the product version and date needed to be updated in the document. PDFs had to be manually combined to create a complete IFU and then exported one at a time for each language. Not only were these IFUs difficult to maintain and update every few weeks; they also presented hurdles to customers seeking answers.

"Prior to using Flare, when our customers went into our cloud-based web application and clicked on the instructions for use, it would just bring up a PDF that they had to search," said Stuart (Stu) Escobar, senior technical writer at HeartFlow, Inc. "There was no way to go directly to the information they needed."

HeartFlow realized that the team needed a new, more scalable authoring approach to support its expansion and to create a better experience for customers. After hearing technical writers recommend MadCap Flare, the team evaluated the product and then quickly began to make the move.

"Using the Flare import process made it very easy to migrate all of our MS Word content into one Flare project," Stu recalled.

## Searchable, Interactive Content via MadCap Flare

Today, the company uses MadCap Flare to deliver the IFU content for the HeartFlow Analysis as interactive, topic-based HTML5 output that the customer can access by clicking on Help icons from within the cloud-based application. Additionally, customers can click on a link from within the HTML5 output to download a PDF version of the IFU, which HeartFlow provides by taking advantage of MadCap Flare's single-source, multichannel publishing.

"Because we use Flare to produce topic-based content and publish it as HTML, our IFUs are more organized and much easier for customers to search," Stu explains. "We also have several locations in the user interface with icons that link to context-sensitive Help.

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**STUART ESCOBAR**  
Senior Technical Writer  
HeartFlow, Inc.

Since rolling out the HTML-based IFU content for HeartFlow Analysis, the company has used MadCap Flare to enhance the online Help and documentation for two new products launching commercially in 2023: RoadMap™ Analysis, which enables CT readers to identify stenoses in the major coronary arteries, and Plaque Analysis, which provides specific plaque characteristics, such as low attenuation plaque. For all three products, the HeartFlow team uses cascading style sheets (CSS) in MadCap Flare to give their respective IFUs the same color scheme and logos as the products, creating a seamless experience for users.

Based on the success of delivering IFUs for the cloud-based applications, HeartFlow has begun using MadCap Flare to develop interactive, topic-based content for other products.



With the HeartFlow Analysis, one MadCap Flare project is used to produce two guides: the Mobile Application IFU and Web Application IFU, in multiple languages.

## Increasing Efficiency 10x with MadCap Flare

Today, the HeartFlow FFR<sub>CT</sub> Analysis is authorized for use in the United States and Canada, the United Kingdom, the European Union, Australia and Japan while the newer RoadMap™ Analysis and Plaque Analysis products are cleared for use only in the United States. To meet regulatory requirements, the documentation for each of the three products is delivered in 12 different languages; however, product availability in the IFU varies based on the region. As a result, the company needs to produce up to 48 IFU outputs (in HTML and PDF formats) to ensure each regional IFU contains the correct content.

I could not succeed in my job without Flare. With conditional tags and targets in Flare, I can automate customizations by hiding or exposing content based on the region, and I know everything will work.



**STUART ESCOBAR**

Senior Technical Writer  
HeartFlow, Inc.

Because there is overlap between the various IFUs, the HeartFlow team relies heavily on MadCap Flare for content re-use. For example, with the HeartFlow Analysis, one MadCap Flare project is used to produce two guides: the Mobile Application IFU and Web Application IFU, in multiple languages. HeartFlow also uses conditional tags and targets to produce multiple guides that are further customized for each region. Targets that determine which conditions to include or exclude in the outputs turned out to be the key in creating customized IFUs. By contrast, creating customizable IFUs was never a scalable option when content management was in Microsoft Word.

"I could not succeed in my job without Flare," Stu says. "We need customized IFUs in four regions of the world because we may have a feature that releases in the US, but not the other regions. Also, regulatory statements may only apply to a given region. With conditional tags and targets in Flare, I can automate customizations by hiding or exposing content based on the region, and I know everything will work."

HeartFlow uses scripts in MadCap Flare to automate processes that once had to be handled manually. These include scripts to add updated screen captures to each of 12 language projects, generate PDF and HTML outputs, and create Flare ZIP exports for each language for archiving.

"The scripts were very easy to create using Flare's command line build and export features. This use of scripts in MadCap Flare, along with the ability to repurpose content, makes it possible to deliver new IFU versions at least ten times faster than before," Stu observes. "Just manually producing outputs for 12 languages in MS Word could take up to eight hours in the past. If images had to replaced, the process was even more time consuming. Now with Flare, the process takes less than 15 minutes with very little manual interaction."

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# Cost-Effective Localization with MadTranslations

HeartFlow has always relied on external localization efforts to translate its documentation. With the adoption of MadCap Flare, the company began using MadCap Lingo translation management software to package IFU project files for its localization provider. Then, the team learned that MadCap Software's MadTranslations localization team could further simplify and streamline the process.

Now, HeartFlow simply sends the English MadCap Flare export file to MadTranslations. The team there handles the MadCap Lingo import to the XML Localization Interchange File Format (XLIFF), completes the translations, and returns the translated MadCap Flare projects to HeartFlow.

Once MadTranslations returns ZIP exports of the localized MadCap Flare projects, HeartFlow team members import them and conduct checks of the content to verify translation accuracy. After the translated files check out, HeartFlow runs scripts that produce the outputs (HTML and PDF) in each language.

"I was able to pick up MadCap Lingo fairly quickly, but it's so much easier to just let MadTranslations handle everything. I save a ton of time," Stu explains.

"We also save money, since MadTranslations only localizes an export of the new or updated content. And of course, we have the translation memory, which builds over time, so there's no cost for anything that has already been translated."

## MadCap Central for Analytics and Collaboration

For years, HeartFlow published its IFUs in multiple languages, but the team had no insight into how much customers were using the IFUs or to what extent each language was being used. Since it began producing its IFUs with MadCap Flare, the company has also added the MadCap Central CXM platform to analyze content usage.

"Using MadCap Central, I've been able to show our management team that people are using the IFUs we're producing, which topics they are looking at, successful and failed search phrases, and which languages are being accessed," Stu observes. "For example, we produce 12 different language versions to meet regulatory requirements, but MadCap Central Analytics showed us that US English, UK English, Danish, Dutch, Japanese and Spanish are the main languages being used by our customers."

Company-wide, HeartFlow uses Confluence for team collaboration and the IFU review process. However, the company also takes advantage of MadCap Central to facilitate collaboration with subject matter experts (SMEs) in producing the IFUs.

"I use MadCap Central to send topics out to SMEs or regulatory experts, so they can review them and mark them up. Then they send the topics back to me where I can look at their changes and accept or reject them. We are also very excited about MadCap

Central Cloud-based Authoring that was recently released, which will further the value that SMEs provide," Stu says.

"Working with MadCap Software has allowed us to improve our productivity and realize huge cost savings that we couldn't have anticipated four years ago," Stu notes. "We will need to add more writers at some point, but to date, our company has added new features and documentation requirements, and we've been able to absorb them with the current team of one senior technical writer."

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