

HIGICC Newsletter - March 2022

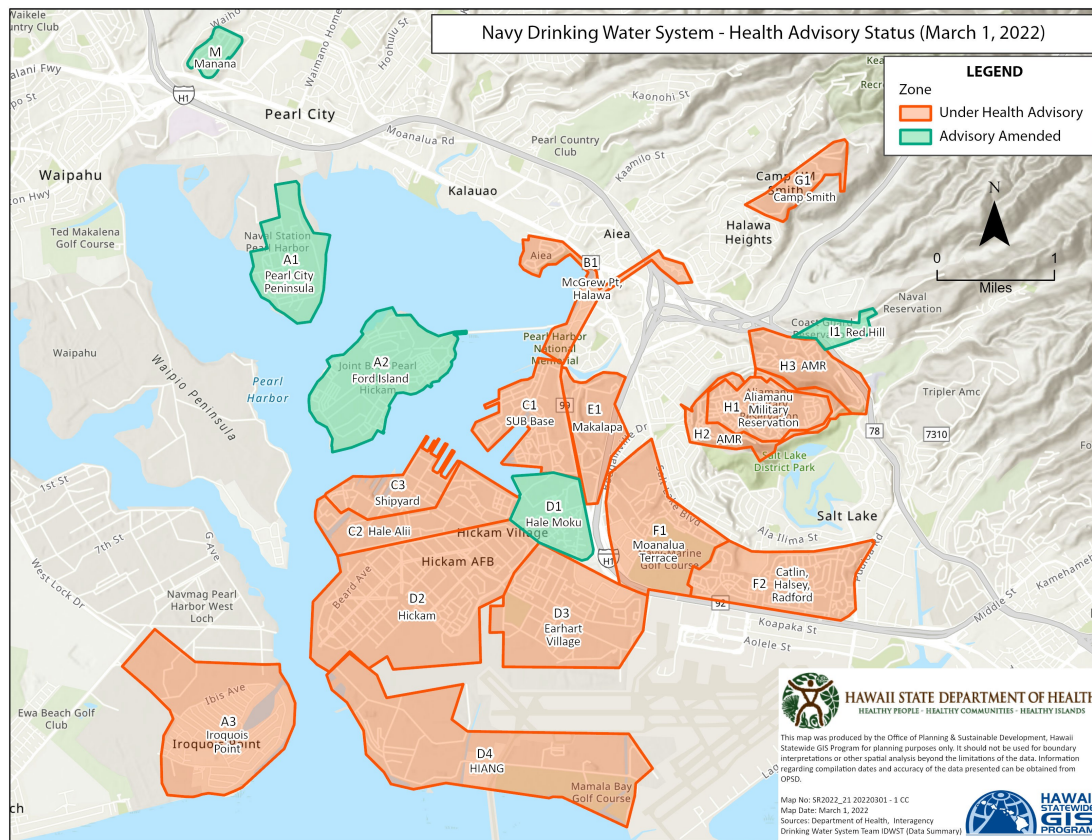


State GIS Supports DOH with Red Hill Incident Response

Christine Chaplin, Hawaii Statewide GIS Program

The Hawaii Statewide GIS Program has been supporting the State Department of Health (DOH) with the Red Hill Incident Response. At this time, the GIS Program is providing public facing maps depicting the Interagency Drinking Water System Team (IDWST) water flushing and sampling zones in the military residential areas surrounding Joint Base Pearl Harbor Hickam. The map shown indicates which zones were deemed safe by the Department of Health (as of the date on the map) for residents to return to their homes and have full use of water resources, and which zones were still under a health advisory.

Internally, the GIS Program's involvement helps leadership visualize the location of sample results and compares them to where residents are reporting gas fumes and/or where oil sheen is present in tap water (after flushing & sampling has been completed).



For more information:

[U.S. Navy Red Hill Bulk Fuel Storage Facility](#)

[IDWST Flushing and Sampling Data](#)

[STEMWorks Innovation Internship Program](#)

Katie Taladay, STEMWorks



Do you have a project that you do not have the time or the know-how to complete? A STEMworks Summer intern can help! At STEMworks, we provide students across Hawaii with training in all the latest and emerging technologies. We are a recognized leader in running STEM-based summer internships, and I would like to personally invite you to apply to host a STEMworks Innovation intern this summer.

Our [STEMworks Innovation Internship](#) program is a 6-week internship that runs from June 13th, 2022 - July 25th, 2022. Interns are expected to work for their host employer 20 hours/week, and we provide them with stipends and weekly professional development. If you are interested in requesting an intern to help you with an important project for your company, you may request an onsite/in-person intern or an intern who can work on your project virtually. We have had enormous success with virtual internships over the past two years, as this option allows us to match you with our brightest STEM talent from across the state.

If you are interested, **please apply to host at bit.ly/STEMworksHost2022 by March 14th**, and a member from our team will reach out to you to get to know your needs better. We will then match you with the best intern for the job.

If you have any questions, please feel free to reach out to me, Katie Taladay, at katie@medb.org Please feel free to share with other businesses and organizations as well.

Aloha,

Katie Taladay
STEMWorks, MEDB Director of Education and Workforce Development
Ph: 808.429.5745

"Logic will get you from A to B. Imagination will take you everywhere." -Albert Einstein

www.stemworkshawaii.org

2022 HIGICC Mark Lierman Memorial Scholarship

Craig Clouet, HIGICC

HIGICC Mark Lierman Memorial Award Scholarship, 2022

2022 HIGICC Mark Lierman Memorial Scholarship

Are you a student using geospatial technologies to further your studies? The HIGICC is pleased to announce that we are now accepting applications for the 2022 Mark Lierman Memorial Scholarship. This \$1,000 scholarship is awarded annually to a current college student who has demonstrated an appreciation for and understanding of geospatial data and GIS. The applicant must be enrolled at an accredited college or university and either be attending in Hawaii or have graduated from a high school in Hawaii.

The scholarship application deadline is June 10, 2022. Visit the HIGICC website at higicc.org/awards for more information!



Introduction to Arcade

Gretchen Chiques, Esri

ArcGIS Arcade is an expression-based scripting language for data in your maps. You can use it within ArcGIS Online, ArcGIS Pro, ArcGIS Runtime, and the ArcGIS API for JavaScript to do basic calculations convert field types and configure symbols, labels, transparency, pop-ups, and aliases — all without leaving the map. And you don't have to

be a developer or GIS expert to use it. Arcade is for anyone who wants to transform their data values on the fly.

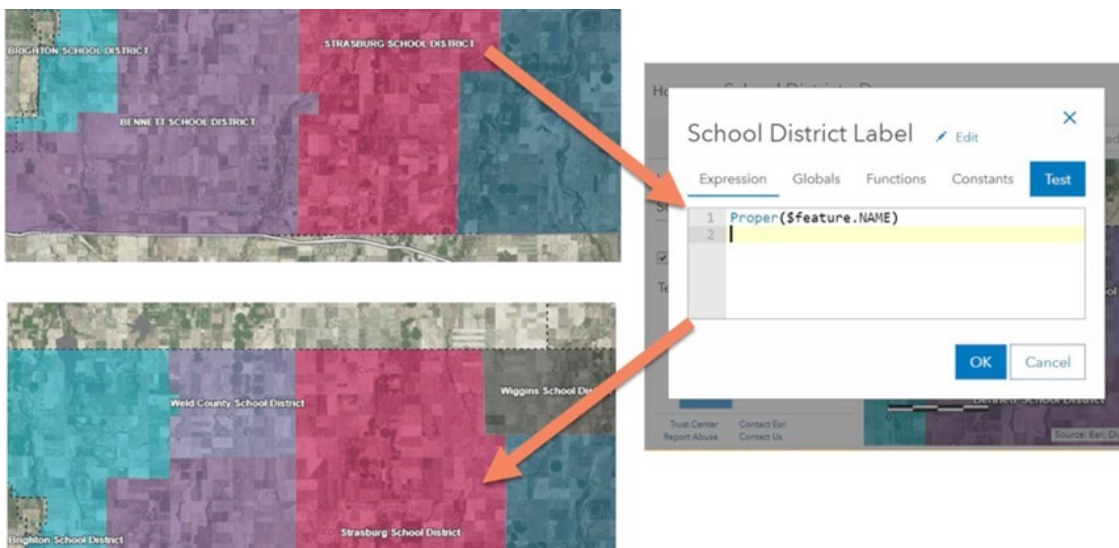
Creating an expression within an ArcGIS Online web map will carry through into your apps downstream. You can create an Arcade expression anywhere you can use a data attribute within your maps.

Arcade can be used for simple excel-like statements or basic calculations like adding two fields together. But it can also be used for complex spatial calculations, variables, loops, and if/else statements. Arcade also contains geometry functions that allow you to calculate areas and lengths and perform simple overlay operations.

Because Arcade expressions are calculated on the fly, you do not need to add a field or permanently calculate values. This makes it easier to utilize the map layers and data already out there.

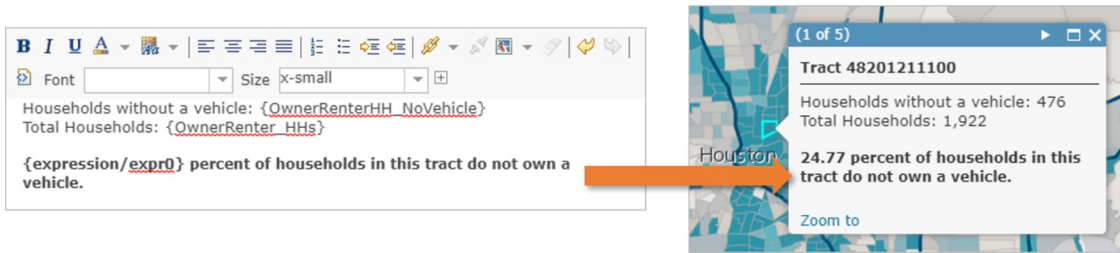
Here are some examples of how to use Arcade in your maps in ArcGIS Online or ArcGIS Pro:

Labels – let's say that you have a school districts layer for your county. However, the NAME field containing the school district name is in all caps. Using the built-in function Proper(), you can quickly label the school districts with neatly formatted text where the first letter of each word is capitalized.

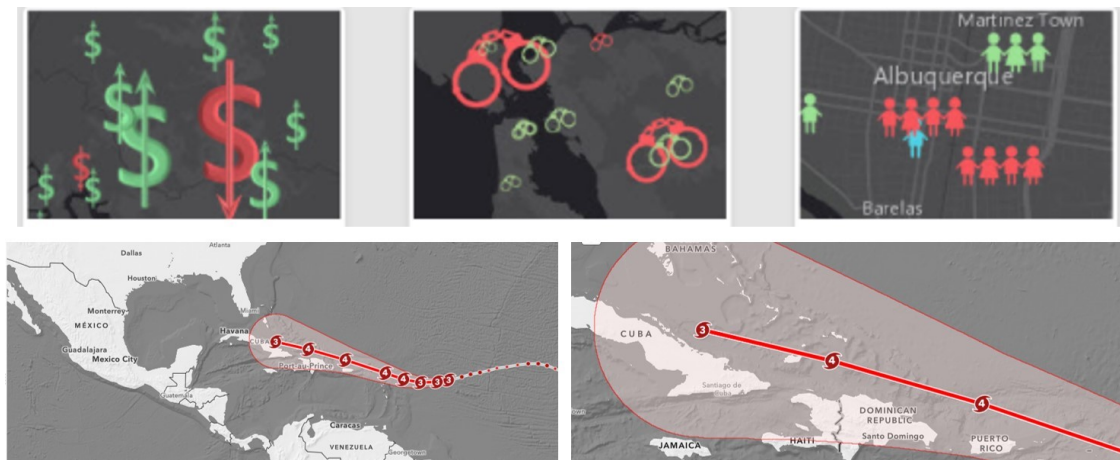


Pop-ups – Imagine you have a dataset of the number of households with no vehicles in your county. The number in the attribute table represents the total number of households without vehicles by census tract in your county. However, you want to show the percentage (instead of the total number) of households with no vehicles in the Pop-up window. Adding a quick expression in your Pop-up, you can show the percentages without

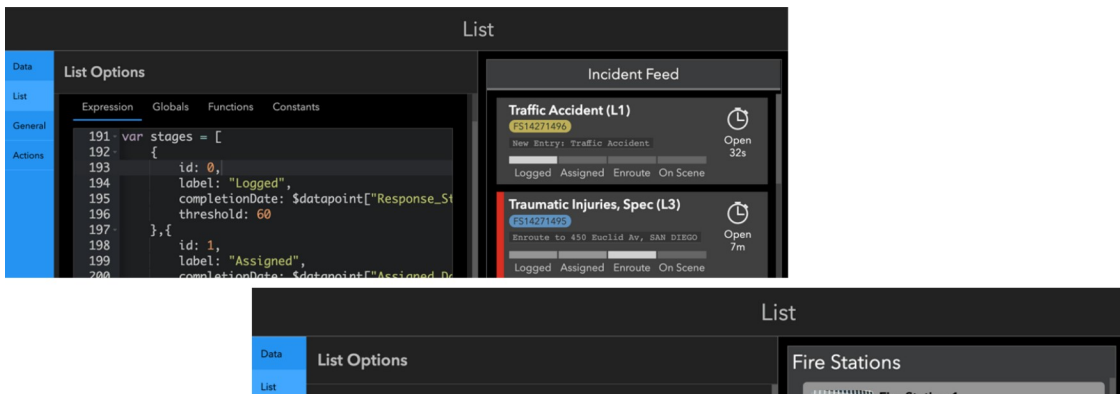
editing the attribute table or your geodatabase. Other examples include doing temperature conversions or any other excel-like calculations. This is particularly useful when you are not the data owner.

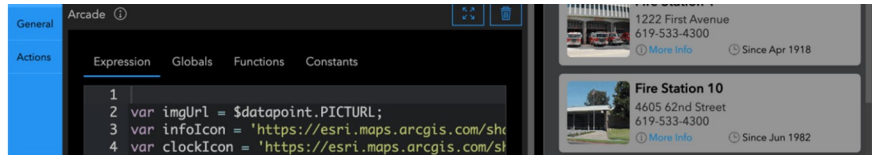


Symbology – Arcade expressions can also be used to set visual variables on the map, such as transparency of features and the rotation of symbols. One example is that you can use Arcade to symbolize a hurricane track that will show the category and set the symbol size by map scale with a few lines of codes.



Dashboards – You can use Arcade in List elements and Indicator elements. With Arcade, you can display attributes in a particular way or visually alert people to a situation through colors or icons based on an expression. For example, the expression below will change the color when a threshold has been met or unmet. Another way to implement Arcade in dashboards is to visualize an incident's stage or add media (pictures) to a list element.





Advanced Arcade – to tap into the versatility of Arcade, you can use HTML and Arcade together to create powerful formatting in your maps and applications.

When not to use Arcade: If your data is extremely large, it is better to use a geoprocessing tool for calculations. Arcade is not a replacement for python or geoprocessing workflows.

To learn more: <https://www.arcgis.com/apps/Cascade/index.html?appid=3271f9b87c394c07b4a871257a5dc46b>

Have more questions? Follow this blog - Arcade Questions Answered: <https://www.esri.com/arcgis-blog/products/arcgis-online/data-management/your-arcade-questions-answered/>

HIGICC Elections Coming Soon

Craig Clouet, HIGICC



The election for the Hawaii Geographic Information Coordinating Council (HIGICC) Board of Directors is coming up soon. Please consider joining the board and helping to shape GIS in the state of Hawaii. The position is a two-year, non-paid position in a 501(c)(3) non-profit organization. The board meets once every 4-6 weeks, for approximately 1.5 hours.

HIGICC works to foster communication and collaboration among all sectors in Hawaii's geospatial community. The board is always looking for new ideas and people interested in promoting geospatial awareness, information sharing, and adoption of GIS technologies to better our community. The nomination process begins in April, with elections held in June, and new terms beginning July 1,

2022. Please consider a position on the board or nominating someone you think would make a good candidate.

2022 Esri User Conference - Call for Images

Gretchen Chiques, Esri



Images are now being [accepted](#) for the 2022 Esri User Conference. Encourage your customers to share their best work—including screen captures of maps, cartographic data displays, applications, and 3D visualizations—for the chance to be featured during Jack Dangermond's Plenary Address. Share the [tips, guidelines, and FAQs](#) with your customers to get started.

Submission deadline is Thursday, June 2, 2022

Mahalo to our Sponsors!



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