Community for Data Integration (CDI) Product Delivery Form

Product Delivery Form for Approved Statements of Interest

Digital/Electronic Products

Software Applications/Tools/Code	
Title	Digital Grain Size Project Website
Description	A 'one-stop-shop' for those interested in acquiring and analyzing sediment imagery. It would serve a number of roles, including: a) algorithm explanation; b) 'best practices' for image collection; c) an opt-in account which allows the user to store sediment image and grain size data online in a secure repository; and d) a user forum for sharing experiences using the software and collecting sediment imagery, exchange ideas pertaining to the software, and foster collaborations
Format	Web site compatible with any modern web browser on a personal computer or mobile device
Restrictions	None
Link or identifier	The current project site: https://dbuscombe-usgs.github.io/DGS_Project

Software Applications/Tools/Code	
Title	Digital Grain Size Web Application
Description	A web application to implement the DGS software to estimate grain size-distribution from images of sediment. Accessed from the main project website, this user-friendly browser-based web-app would allow users to upload and analyze their sediment imagery, interact with the program and download the results in a variety of formats. The app would be based on the existing Python code, ported into a web framework to be deployed on a web server. The website will allow tracking of software usage, and provide a consolidated, central, stable platform on which to develop the software by listening to end-user needs.
Format	Application accessed through and interacting with the web site described above, compatible with any modern web browser on a personal computer or mobile device
Restrictions	None

Link or identifier	The current python source code for the processing part of the application and a brief description of its functionality can be found at the following site: https://github.com/dbuscombe-usgs/pyDGS

Publications

Website/Open File Reports/Fact Sheet/Press Releases/Blogs/Etc.	
Title	Development and usage of a web application for automated grain size analysis from images of sediment
Description	USGS Open File Report written by the PI and all co-PIs, detailing the technical aspects of the computational algorithms and web application framework. This will serve as an important resource for researchers who wish to implement similar computational data analysis tools through web browsers
Link or identifier	http://pubs.usgs.gov/of/

Website/Open File Reports/Fact Sheet/Press Releases/Blogs/Etc.	
Title	Web application for automated grain size analysis from images of sediment
Description	Magazine article intended for EOS (Earth and Space Science News published by the American Geophysical Union) intended to disseminate and advertise the new tools as widely as possible to the earth and space science community
Link or identifier	https://eos.org