

Coming Soon: View and Run Algorithms in IEEE *Xplore*[®]

Beginning in 2017, authors will have the option to upload their algorithms to a new service called Code Ocean. IEEE *Xplore* users will be able to view and run these algorithms.

What is Code Ocean?

Code Ocean is a new web service that allows authors to upload and share their algorithms. Authors are able to easily upload their algorithms and associated data to the site, where other users are able to run them, and test modifications to the code. (The published algorithm will remain unchanged.)

The algorithms are typically associated with research published in scholarly articles by IEEE or other publishers. Users of Code Ocean can also search and browse for algorithms on that platform.

What is IEEE's involvement with Code Ocean?

IEEE has partnered with Code Ocean to enable IEEE *Xplore* users to view and run algorithms from IEEE articles. Once these algorithms are published through Code Ocean, they are accessible to all IEEE *Xplore* users, who are able to run the algorithms and make edits in Code Ocean. Those edits will not affect the published version of the algorithm.

Why should authors upload their algorithms?

There are many reasons to upload an algorithm and link it to the published article.

- Sharing data makes research more transparent. Funders, institutions, and governments around the world are increasingly supportive of open data.
- You can get credit for your work. Code Ocean algorithms will have a DOI link and can be cited in other research.
- The Code Ocean interface is clean and easy to use. It's easy to collaborate with colleagues who have different software.
- It makes your IEEE article more interactive for readers.
- You have an easy and efficient way to share your algorithm. You don't need to spend the time to send the code and associated data to others when they request it. You can simply send the link to your article in IEEE *Xplore*.

Who can upload an algorithm?

During the alpha phase, algorithms may be uploaded by authors publishing in the following 15 journals during the article submission process.

- IEEE Transactions on Knowledge and Data Engineering
- IEEE Transactions on Computers
- IEEE Transactions on Parallel and Distributed Systems
- IEEE Transactions on Software Engineering
- IEEE Transactions on Pattern Analysis and Machine Intelligence
- IEEE Transactions on Mobile Computing
- IEEE/ACM Transactions on Computational Biology and Bioinformatics
- IEEE Transactions on Visualization and Computer Graphics
- IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems
- IEEE Transactions on Signal Processing
- IEEE Transactions on Image Processing
- IEEE Transactions on Dependable and Secure Computing
- IEEE Transactions on Very Large Scale Integration Systems
- IEEE/ACM Transactions on Networking
- IEEE Transactions on Multimedia

Additionally, authors of any IEEE journal article that has been published in IEEE *Xplore* in the past 5 years are able to upload their algorithms to Code Ocean. The published articles will link to the Code Ocean algorithms.

What programming languages are currently supported by Code Ocean?

Almost all versions of the following languages are currently supported by Code Ocean:

- C/C++
- Fortran
- Java
- Julia
- Lua
- Matlab
- Octave
- Perl
- Python
- R

Are there any fees?

No. Authors may upload algorithms without charge or obligation. Users will be able to access algorithms regardless of whether or not they have a subscription to a particular journal.

When will algorithms appear on IEEE *Xplore*?

Algorithms will be visible in IEEE *Xplore* in the second quarter of 2017.

Who can I contact for more information?

Please contact onlinesupport@ieee.org for additional questions about Code Ocean.

You may visit the Code Ocean homepage at <http://codeocean.com/>. However, please note that limited information will be available before Code Ocean launches in mid-January 2017.

Updated December 2016