Share your algorithms in the IEEE *Xplore*® Digital Library through Code Ocean!

IEEE and Code Ocean recently partnered to enable IEEE authors to upload, share, and run their algorithms on the Code Ocean platform, accessible through IEEE *Xplore*. Upload your code today for any new or previously published IEEE articles.

What is Code Ocean?

Code Ocean is a cloud-based executable research platform that allows authors to share their algorithms for free in an effort to make the world's scientific code more open and reproducible. Uploading your algorithms and associated data files to the Code Ocean site is easy. Anyone can run an algorithm posted on Code Ocean, modify it, and test the modifications. The published algorithm that an author posts will remain unchanged.

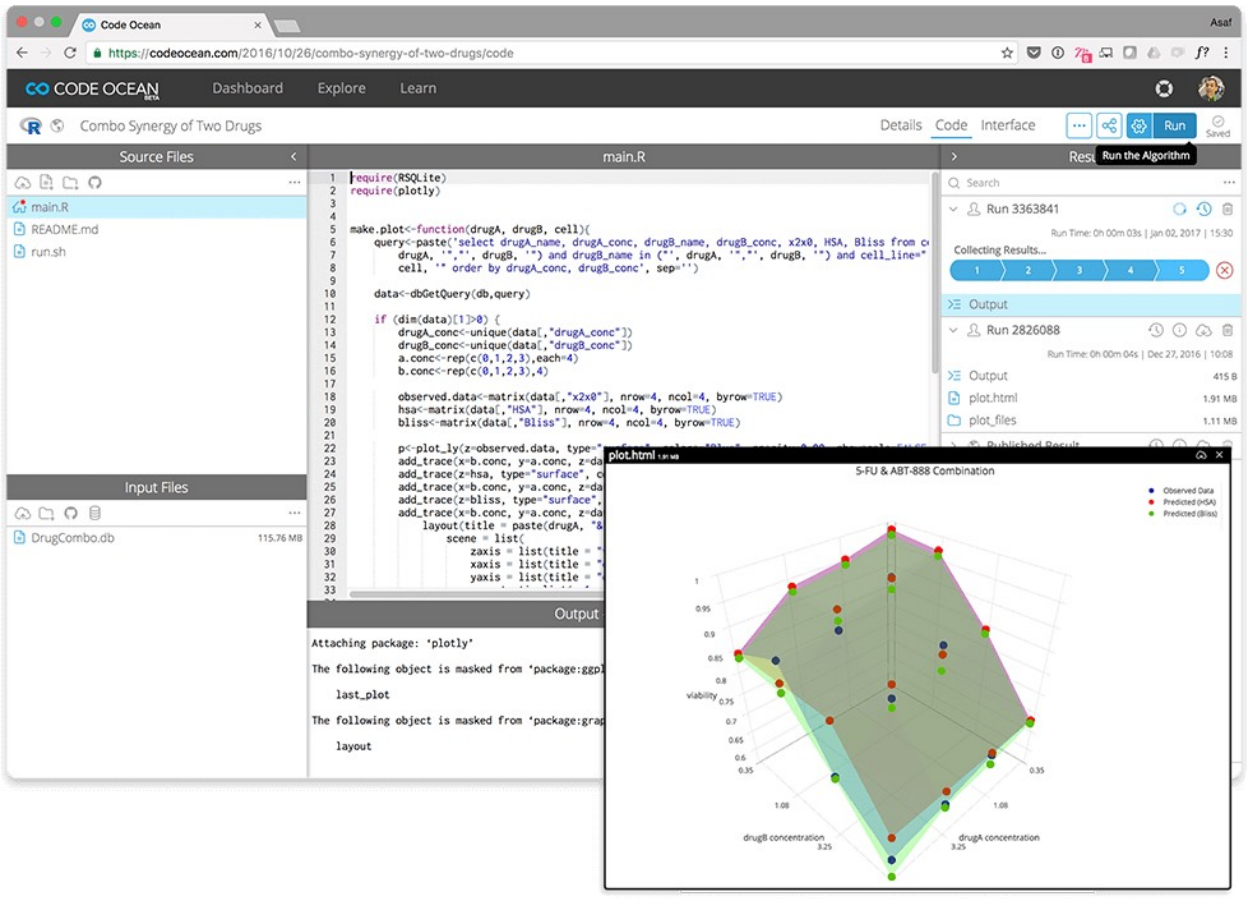
How does this work with IEEE *Xplore*?

As of 28 February 2017, algorithms from IEEE journal articles are accessible through IEEE *Xplore*. Any IEEE article in *Xplore* that has an associated Code Ocean algorithm linked to it will now have an algorithm tab. In this tab, users can link over to the associated algorithm on the Code Ocean platform, where they can view, run or edit it. This allows for greater interactivity with the IEEE journal articles that have associated algorithms. IEEE authors must link their articles with the Code Ocean algorithm before the algorithm tab and links appear in IEEE *Xplore*.

Additionally, IEEE *Xplore* users are now able to filter their searches to include only articles with algorithms.

How do IEEE authors share their algorithms on Code Ocean?

Any author that has had an IEEE journal article published in IEEE *Xplore* in the last five years can upload associated algorithms to Code Ocean by visiting https://codeocean.com/ieee/signup. Once the algorithm is uploaded to Code Ocean it will automatically be linked to the associated article in IEEE *Xplore.* Users in IEEE *Xplore* will be able to discover and access the link to run the algorithm on Code Ocean.



A screenshot of the Code Ocean platform.

Additionally, IEEE authors publishing new articles in the following sixteen journals will be asked during the submission process and after acceptance whether they would like to upload an algorithm to Code Ocean. Instructions to upload the algorithm will be communicated through a series of questions in ScholarOne Manuscripts.

- 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
- IEEE Transactions on Automation Science and Engineering

Are there any fees?

There is no charge for uploading algorithms to Code Ocean. Users will be able to access algorithms regardless of whether they have a subscription to a particular journal.

Will authors have to transfer the copyright of their algorithms to IEEE or Code Ocean?

No, authors will always maintain copyright.

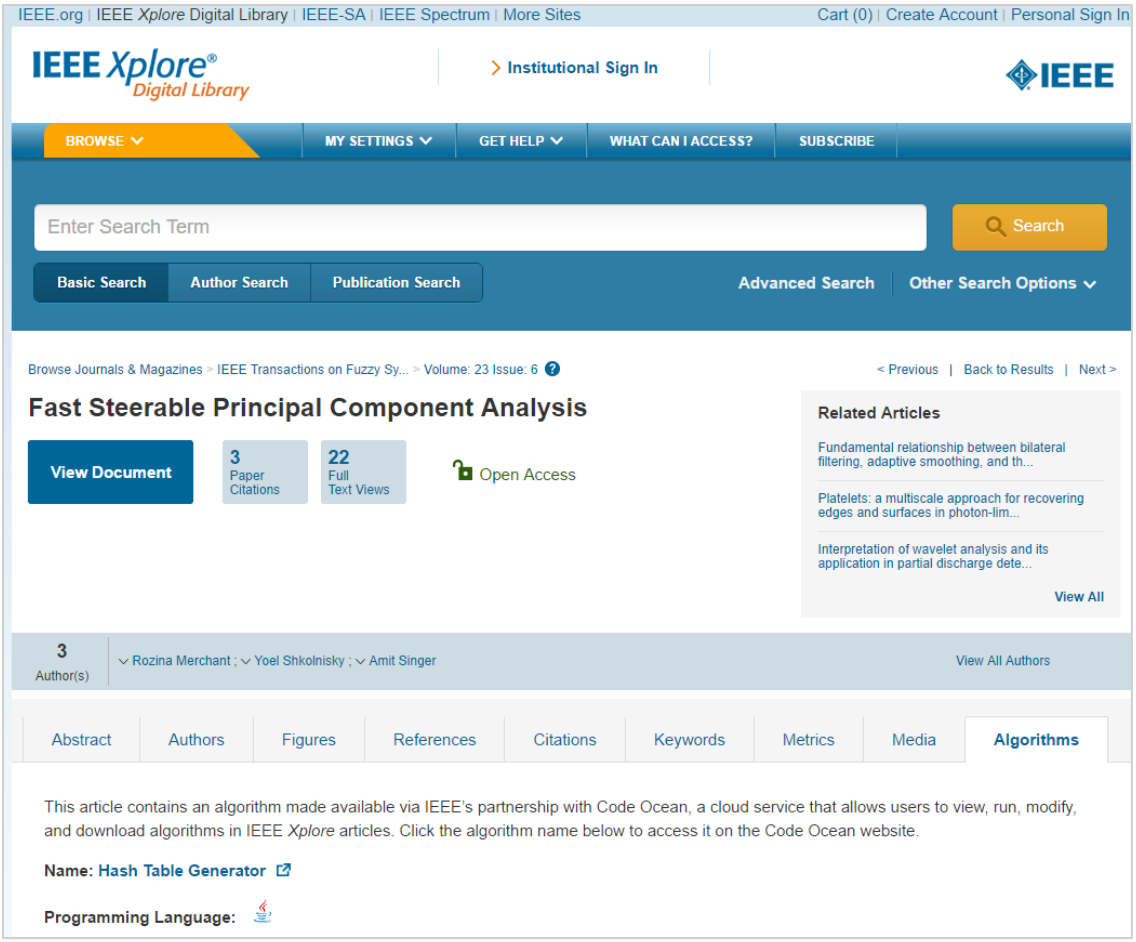
Why is IEEE partnering with Code Ocean?

IEEE publishes a large volume of articles that reference code and algorithms, but there is currently no way for readers to interact with the code and simulations. Readers are only able to read the algorithms or download static supplemental files. By using Code Ocean's services, algorithms in IEEE articles can now be executed in real time. This additional interactivity allows users a more robust and efficient way to play with the code and reproduce the research. This new dimension of interactivity adds value, credibility, and impact to IEEE articles.

Why should authors upload their algorithms?

In addition to making an article more interactive, authors who upload their algorithm to Code Ocean save time by uploading the material to one easily accessible platform rather than sending the code and associated data to others individually upon request. Sharing data also makes research more transparent. Funders, institutions, and governments around the world are increasingly supportive of open data. Additionally:

- Authors will get credit for their work. Code Ocean algorithms have DOIs and can be cited in other research.
- The Code Ocean interface is easy to use and facilitates easier collaboration with colleagues who have different software.



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

Who should authors contact for more information?

Authors and algorithm users can visit https://codeocean.com/learn for information on how to upload and run algorithms. Authors with general questions about the IEEE/Code Ocean partnership should contact onlinesupport@ieee.org.

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