

New tool helps researchers using computers

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Researchers at the Department of Energy's Oak Ridge National Laboratory have developed a computational technology called Eclipse Integrated Computational Environment (Eclipse ICE) that assists those conducting research on computers to focus on their studies of science without being bogged down with mechanics of the computers.

"Research scientists who are involved in modeling and simulation are often faced with very difficult challenges when it comes to using modeling and [simulation tools](#)," said Jay Billings of ORNL's Computer Science and Mathematics Division and one of the developers of the technology. "Eclipse ICE helps deal with these issues by really encapsulating all of the details and adding maybe a graphical layer to make things interactive and for really shifting the emphasis to what the user needs to do and less about how they need to do it."

The tool is already assisting hundred of users in a variety of research.

"Our largest area that we support is [nuclear energy](#)," Billings said. "We also support a lot of users in battery space – looking at virtual batteries. We do a lot of work in [quantum computing](#) where ICE works as kind of a front end to simulate quantum computers. We do a lot of work with visualization to make it easier for people to get their data and look at it. We still work in other areas like advance materials and astrophysics."

Provided by Oak Ridge National Laboratory

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