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Picture this: visualisation software to aid bushfire, flood and other complex research

New software that transforms scientific datasets into easy-to-comprehend pictures will allows researchers to share their insights with new audiences in areas such as environmental and disaster management.



Credit: CSIRO

The free software, known as Workspace, is purpose-built for scientific applications and allows researchers to present their findings through vivid data visualisation.

Developed over the past eight years at CSIRO, Workspace has already been used for a range of projects, including natural disaster modelling, human movement and industrial and agricultural research.

One CSIRO team has already used the software to model and visualise simulations for storm surges and flash flooding, helping with disaster management planning.

Dr John Taylor from CSIRO's Digital Productivity Flagship said the software offered huge efficiency savings for researchers from all fields who work with datasets and complex analysis, freeing them up to spend more time focused on their scientific expertise.

'In institutions all around the world, researchers operate within similar workflows; sourcing data, analysing it, processing it – often using high-performance computing environments,' he said. 'Very often, this involves a number of manual repetitive steps.

'Workspace makes these steps easy to automate. In one application, analysis that had previously taken two weeks to conduct manually was carried out in less than an hour.

'Scientists also need to publish the outcomes of their research. Workspace allows them to easily release the software and analysis that backs up their findings.'

Dr Taylor says another advantage of Workspace is that users don't need advanced programming skills and it runs on many different platforms and environments.

'If others can easily grasp what your science means, this opens it up to brand new audiences. This not only helps researchers engage with the public, but it also allows them to reach out to other collaborators in the science community and industry.'

Workspace is free to download for research purposes and can be licensed for commercial applications. Those interested in learning more about Workspace can download the software here.

Source: CSIRO

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