ASIA-PACIFIC
SPATIAL EXCELLENCE AWARDS

WINNER

CSIRO DATA 61
Spark Bushfire System

Also winner of the
JK BARRIE AWARD

What was the problem?

Bushfires have a major impact on the Australian environment and are a significant danger to lives and homes in rural regions. Operational fire management, land management agencies and research teams need to predict fire spread in emergencies, calculate risk from bushfires to communities and infrastructure, and develop improved models for fire behaviour through a fully flexible location-agnostic approach.

What where the key outcomes?

In the two years since release the system has been adopted by local councils, state agencies, research teams and commercial bodies.

How did you address it?

The Spark system is based on a modular software structure, allowing complete flexibility for combining and processing data layers, running dynamic fire spread models and analysing the results. Internally Spark uses new graphical processing unit (GPU) technology to vastly increase the speed of computations for both dynamic fire spread modelling and geoprocessing operations. The software is freely available for non-commercial use in several forms, including a windowed map-based interface and a headless version for server or cloud computing.

The Spark technology directly translates into mitigating damage to communities and infrastructure, developing better understanding of natural hazards and potential to save lives, with benefits for bushfire prone regions around Australia.

For more information about this project or to contact Esri Australia please visit their website:
www.data61.com.au

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