

# An Integrated Land Use and Transportation Planning Tool for Sydney

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## ABSTRACT

The SMART Infrastructure Facility at the University of Wollongong, Australia, has been building an agent-based model to explore the feedbacks between transportation and land use. We focus on livability as a key driver of agent's location choice, and in addition to transport we include factors such as: housing costs, population density, socio-cultural diversity and available amenities. In order to build this model we have integrated a Repast Symphony (2.0) based model as the core of the platform with TRANSIMS and a HTML+CSS+JavaScript front end. In this presentation I will cover the current research into agent behaviors, the, as well as the software system we have put together to implement this.

## Biography

Dr. Matthew Berryman completed his PhD in complex systems modeling and analysis at the University of Adelaide in 2007. From 2007-2009, he worked for the Australian Defense Science and Technology Organization before joining the University of South Australia in 2009, and then moved to the SMART Infrastructure Facility at the University of Wollongong. At the SMART Infrastructure Facility, he helps to model Australia's future infrastructure needs and to make existing infrastructure smarter through the use of technology.

Location: Bldg 222, 2d Floor Conference Room, Argonne National Laboratory