



# Schedule software right on time

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GROUNDBREAKING Australian software that takes account of all the factors affecting flight schedules is expected to save airlines a lot of money.

The two-year project, involving researchers from Monash and Melbourne universities as well as logistics software company Constraint Technologies International, could see airlines cut costs by 5 per cent.

They say there could also be big environmental benefits through reducing fuel used in air travel, and tourism could be boosted by cheaper tickets.

Although researchers in other countries have linked some aspects of scheduling, the Melbourne re-

searchers say their project is the most ambitious yet.

“We’re obviously going for an integration that hasn’t been done before,” Monash researcher Mark Wallace says. “Some work on integration going on with particular pieces in Canada, the US and my old group in the UK but we’re taking a bigger slice now.”

The project is being funded by the Australian Research Council Linkage grant. It will factor in departures, destinations, fleet size, crew allocation, gate allocation and maintenance requirements, in a single algorithm that can identify the most appropriate schedule.

Savings would come from efficient fuel use, better staff resourcing and more effective use of aircraft.

“People treat them separately,

and only do one optimisation after another, which only gets you half way,” Professor Wallace says.

It was difficult to estimate the savings airlines would reap from the project, but cost advantages rose as more factors were combined.

“If you commit yourself to a number it can come back to bite you. But I think if you could put together five pieces you get a per cent every time and you could be saving 5 per cent, a twentieth, which is a huge amount of money.”

The researchers believe the project will continue past the planned two years as aspects such as optimising routing on the day of operation are added.

Industrial partner CTI hopes to adapt the software for other forms of transportation.