

Brandon software fights forest fires

Forest fires destroy millions of acres of forest and grassland around the world each year and many of them are extinguished with help from Brandon-based Heartland Software Solutions Inc. What's the connection?

From their Brandon office, Heartland Software's five employees provide computer programming expertise and support to forestry agencies around the world in the form of Prometheus, the world-leading forest fire simulation model.

The Prometheus software incorporates fire behaviour patterns based on literally hundreds of fires, a century of Canadian research and real-world experience, and mathematics developed in the mid-1990s by Brandon University Prof. Gywnfor Richards.

The program has been in development for several years with support from fire agencies across Canada and in particular the leadership of Alberta Sustainable Resource Development.

Fire growth modelling involves computer simulation of a forest fire's expected growth and path. It takes into account a wide number of variables including the terrain,

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WHO KNEW?

Gerald Cathcart is a business development specialty with Economic Development Brandon. Once a month he explores a local business whose innovative products and services are marketed beyond Manitoba's boundaries.

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weather conditions, time of year, and type of vegetation present. For forestry agencies, the ability to accurately predict the path of a large wildfire represents an essential support tool for fighting fires. Prometheus assists fire control personnel choose the best strategy for deploying the firefighting resources that can ultimately save lives.

Heartland Software's president, Robert Bryce, was raised at Austin, Man. He completed his undergraduate degree at Brandon University (Class of '93), and completed his graduate degrees at the



Forest fires, like this one last year near Sherridon, Man., are a little easier to fight, thanks to a computer program named Prometheus. The program is offered to forestry agencies around the world from the Heartland Software office — in Brandon. (Photo courtesy Manitoba Conservation)

University of Victoria. He recently returned to Brandon from Vancouver, leaving the stress of big city living behind. "I have friends in Vancouver's video game industry who,

despite having large salaries, are forced to commute two hours each way to work because of the high cost of housing," Bryce said. "I enjoy the opportunities and lifestyle that Brandon offers

and in fact turned down a great offer for work in Seattle which would have meant an even longer commute than my Vancouver friends. My colleagues continue to question

both the personal and financial costs of big city life."

Heartland Software demonstrates how technology has shrunk the world's geography; Bryce and his team support forestry agencies across Canada and around the world from their office here in Brandon — a very "wired" city with a telecommunications infrastructure second to few.

As Bryce explains, "Brandon could easily be home to more programmers, designers and support technicians for products and services sold around the world. Brandon University and Assiniboine Community College continue to produce very talented graduates with new ideas; these ideas simply need a chance to develop locally."

He points out that some local technology synergies already exist such as Heartland Software's collaboration with another innovative local company, On Demand Imagery Solutions.

Bryce coyly admits that he has other projects underway, but for now, and like all great inventors, they are for his eyes only. Brandon should expect to hear more from this young entrepreneur before too long.