



New Fire Simulation Program is a Breakthrough for Training

By Josh McDaniel
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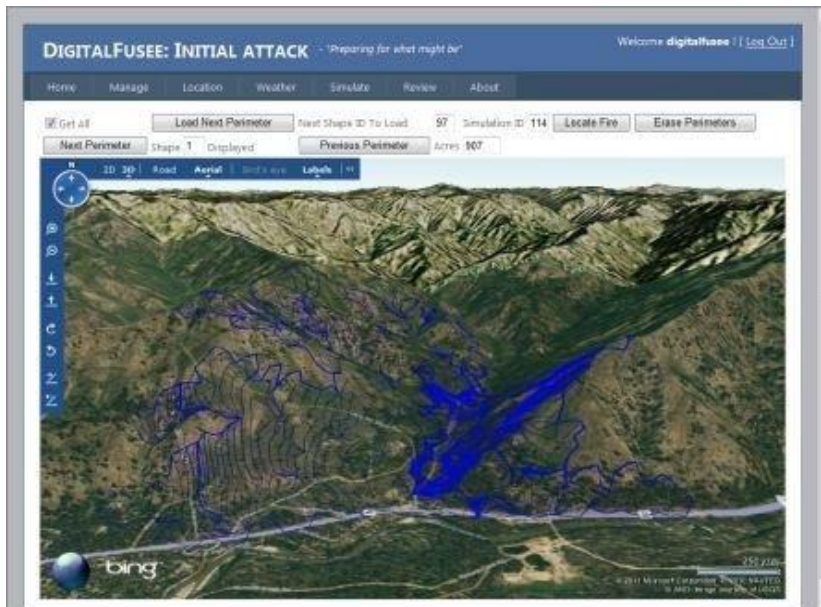
Digital Fusee, a new program developed by Benchmark Research and Safety, just may provide a training tool that puts powerful fire spread simulations within the reach of local fire departments or emergency response departments.

The subscription-based program, which will be available for beta testing October, 2011 with a release planned soon after (www.digitalfusee.com). The service allows users to quickly and easily create training exercises using simulated fires in the areas where firefighters work. It will be priced at \$199 per month. The program clearly demonstrates the effects of weather and terrain on fire behavior and creates opportunities to practice coordination within the fire organization.

According to Curt Braun, the creator of Digital Fusee, the program is designed to bridge what he calls the 'fire training gap.'

"We train firefighters in the spring for fire conditions they may not see until August or September. Digital Fusee bridges that gap by allowing training to continue throughout the summer or year-round if needed," says Braun.

Digital Fusee takes the heavy-lifting out of fire simulations and puts the technology within reach of engine captains, FMOS, or Asst. FMOS who may not be working in WFDSS, but still need to prepare for fire. It is able to simplify the technology by focusing on the training aspects of fire spread rather than precise predictions.



Digital Fusee 3-D output of fire perimeters over a 48 hour period.

The program is surprisingly intuitive to use. First, an ignition point is selected using Bing Maps. The ignition point is used to gather the relevant weather data from the closest RAWS station and fuel data is obtained from LANDFIRE. The application allows the user to select average, 75th, and 97th percentile and user defined conditions for wind speed, temperature, humidity and precipitation. The program also allows for selection of a range of wind directions. The program then runs a fire simulation for 48 hours from the start of ignition by sending the selected parameters to FARSITE. FARSITE sends back expanding fire perimeters at regular intervals, which are placed on the same map with the ignition point. The perimeters can be shown on road maps, aerial photographs, or in 3-dimensions. The program has tremendous potential for quickly and efficiently developing training exercises, and provides a tool that can be used for discussions of fire behavior, suppression tactics, and resource coordination.

Future releases of the program will allow suppression actions to be input and will be available on any web-enabled device. The beta release of the program can be accessed at www.digitalfusee.com and more information can be obtained from info@digitalfusee.com.

Advances in Fire Practice is a sub-site of wildfirelessons.net and is focused on bringing efforts and ideas to the forefront that leaders in the fire management, practice, and research communities have identified as innovative and widely applicable. It provides access to critical and proven fire information and resources. Advances in Fire Practice section can be reached directly by going to <http://www.wildfirelessons.net/AFP.aspx> or through the main Wildland Fire Lessons Learned Center website at www.wildfirelessons.net.

The Wildland Fire Lessons Learned Center actively promotes a learning culture for the purpose of enhancing safe and effective work practices in the entire U.S. wildland Fire community. It is located at the National Advanced Fire & Resource Institute in Tucson, Arizona.

