



**UFORA**

# Financial Simulation

## The Challenge

Sophisticated financial institutions rely on mathematical models to analyze increasingly complex data. But current tools force analysts to compromise by waiting hours for computations, by tolerating lower accuracy thresholds for large data sets, and by repeatedly switching across multiple platforms, languages, and data sets.

A hedge fund client approached Ufora with these challenges, hoping to radically improve their analysis toolbox. They provided Ufora with a sample of one of their analysis models.

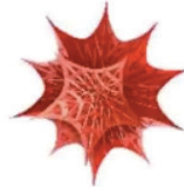
## Ufora Solution

A single Ufora engineer mapped the hedge fund's Mathematica code into Ufora in an afternoon. Ufora's parallel environment eliminated the headaches about how to parallelize their unique model and Ufora's version ran optimally in parallel from the moment it was written, achieving C++ speeds, without sacrificing flexibility, so that changing assumptions was painless. The fund's analysts can now maintain, edit, and evaluate multiple the models themselves, without relying on an expensive engineering team.

## Impact & Results

The hedge fund's model required 40% less code in Ufora, and ran 15X faster on a single machine. Because Ufora scales seamlessly across multiple computers, the model's computations were dispatched to an entire cloud with the click of a button, completing the analysis each night 750X faster than their previous Mathematica solution.

Mathematica



Ufora



**40% Less Code**

(more readable, adaptable)



**750X Faster**

(without engineering headaches)



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