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Dexter Systems Selected as Top Finalist in Prestigious ROADEF/EURO Challenge 2014

New York, NY – Dexter Systems announced today that it had placed third out of thirty-two teams in the qualification phase of an international engineering competition sponsored by SNCF, France’s national railway, and EURO (European Operational Research Society). The competition, ROADEF/EURO Challenge 2014, asked participants to generate schedules for the arrival and departure of several thousand trains. The results in the qualification phase mean that Dexter can participate in the final round scheduled for June 2014.

Scheduling is a classic computer science problem because the number of possible solutions is practically infinite. The train problem in the ROADEF challenge required respecting dozens of physical and imposed constraints such as train length, resource usage, and maintenance requirements. Solutions were graded according to the number of departure schedules adhered to, as well as performance and cost metrics such as maintenance costs and track conflicts.

Dexter’s submission was a program based on its DeXpert optimization engine, a framework for solving multi-objective constraint and optimization problems. Project manager and solution architect Timothy Herman stated that *“While the SNCF challenge itself was very difficult, using the DeXpert framework was easy. It allowed us to spend resources on the specifics of the problem, rather than the boiler-plate infrastructure code. Because of this, we were one of the first teams to submit solutions.”*

Challenge participants consisted of small teams, many of which were from the faculty of Operations Research departments from the world’s top universities. Dexter team member Dr. Steven Sessions said *“It was certainly humbling to compete against specialists in the field, but in the end we were able to deliver solutions where many of the teams did not. The DeXpert platform definitely gave us an edge.”*

First place went to Helmut-Schmidt-University, University of the Federal Armed Forces Hamburg, Germany. Dexter Systems’ CEO Bill Doyle added that, *“We’ve done a lot of optimization work before, namely with field technician scheduling and routing, but our team took it to another level. We look forward to the finals.”*

Dexter Systems, established in 1987, lives “at the intersection of technology and productivity”, and specializes in workflow, analytics, and optimization solutions.

Challenge web site: <http://challenge.roadef.org/2014/en/index.php>

Dexter Systems web site: <http://www.dextersystems.com>

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