











A Tabu Search Heuristic for the Vehicle Routing Problem

Michel Gendreau, Alain Hertz, Gilbert Laporte

Published Online: 1 Oct 1994 https://doi.org/10.1287/mnsc.40.10.1276

Abstract

The purpose of this paper is to describe TABUROUTE, a new tabu search heuristic for the vehicle routing problem with capacity and route length restrictions. The algorithm considers a sequence of adjacent solutions obtained by repeatedly removing a vertex from its current route and reinserting it into another route. This is done by means of a generalized insertion procedure previously developed by the authors. During the course of the algorithm, infeasible solutions are allowed. Numerical tests on a set of benchmark problems indicate that tabu search out performs the best existing heuristics, and TABUROUTE often produces the best known solutions.

Your Access Options

Login Options

INFORMS Member Login

Nonmember Login

Purchase Options

Save for later

INFORMS site uses cookies to store information on your computer. Some are essential to make our site work; Others help us improve the user experience. By using this site, you consent to the placement of these cookies. Please read our Privacy Statement to learn more.

Agree

Single article purchase

\$30.00



Add to cart

Other Options

Token Access ∨

Claim access using a token Restore guest access

Applies for purchases made as a guest

Article Information

Information

© 1994 INFORMS

Cite as

Michel Gendreau, Alain Hertz, Gilbert Laporte, (1994) A Tabu Search Heuristic for the Vehicle Routing Problem. Management Science 40(10):1276-1290.

https://doi.org/10.1287/mnsc.40.10.1276

Keywords

vehicle routing problem tabu search generalized insertion

PDF download

Sign Up for INFORMS Publications Updates and News

SIGN UP





The Institute for Operations Research and the Management Sciences

5521 Research Park Drive, Suite 200 Catonsville, MD 21228 USA

phone 1 443-757-3500

phone 2 800-4INFORMS (800-446-3676)

fax 443-757-3515

email informs@informs.org

Get the Latest Updates

Email Address

Sign Up

Discover INFORMS
Explore OR & Analytics
Get Involved
Impact
Join Us

Recognizing Excellence
Professional Development
Resource Center
Meetings & Conferences
Publications
About INFORMS
Communities

PubsOnLine
2023 Analytics Conference
Certified Analytics Professional
Career Center
INFORMS Connect

INFORMS site uses cookies to store information on your computer. Some are essential to make our site work; Others help us improve the user experience. By using this site, you consent to the placement of these cookies. Please read our Privacy Statement to learn more.