
A unifying software framework for vehicle routing and logistics.

Jannik Enenkel¹, Jannik Geyer¹, Jan-Niklas Keiner¹, Johannes Nguyen¹, Jan Steulerand¹, and Neil Urquhart^{*1}

¹Edinburgh Napier University – 10 Colinton Road, Edinburgh, UK, EH10 5DT, United Kingdom

Abstract

A wide range of open source tools and real world data are available to support those working on vehicle routing and logistics optimisation. Despite such tools being available there is still a requirement for a unifying software API to allow researchers and developers to access such tools and data with ease. We present a framework written in the Java API that provides access to data from sources such as Open Streetmap and public transport APIs, as well as facilities for scheduling events and for producing KML map overlays. By making use of Object Oriented software engineering techniques we can make data sources interchangeable and exploit common concepts such as locations and journeys. With multiple sources of data available an important underlying concept is that objects within the system have their data source identified. We believe that this framework provides a useful resource for those working within the field and encourage collaboration. The framework is open source and is available for all to download, use and modify.

*Speaker