## A unifying software framework for vehicle routing and logistics.

Jannik Enenkel, Jannik Geyer, Jan-Niklas Keiner, Johannes Nguyen, Jan Linus Steulerand Neil
Urquhart
School Of Computing,
Edinburgh Napier University

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.