

Reserved Trip Simulation Using VR Technology

Overview

Welcome to our Trip Simulation Reserved plugin software. It is based on the FORUM8 software UC/Win-Road for virtual reality technology. With this new plugin, you can optimize your travel experience of driving simulation. This software is based on the Wardrop principle of traffic planning.

The workflow is simple. Before starting travel, the user will submit the information to the system, and the system will automatically identify the suitable path in the road network and make the best choice to ensure more comfort in travel and reduce travel costs.



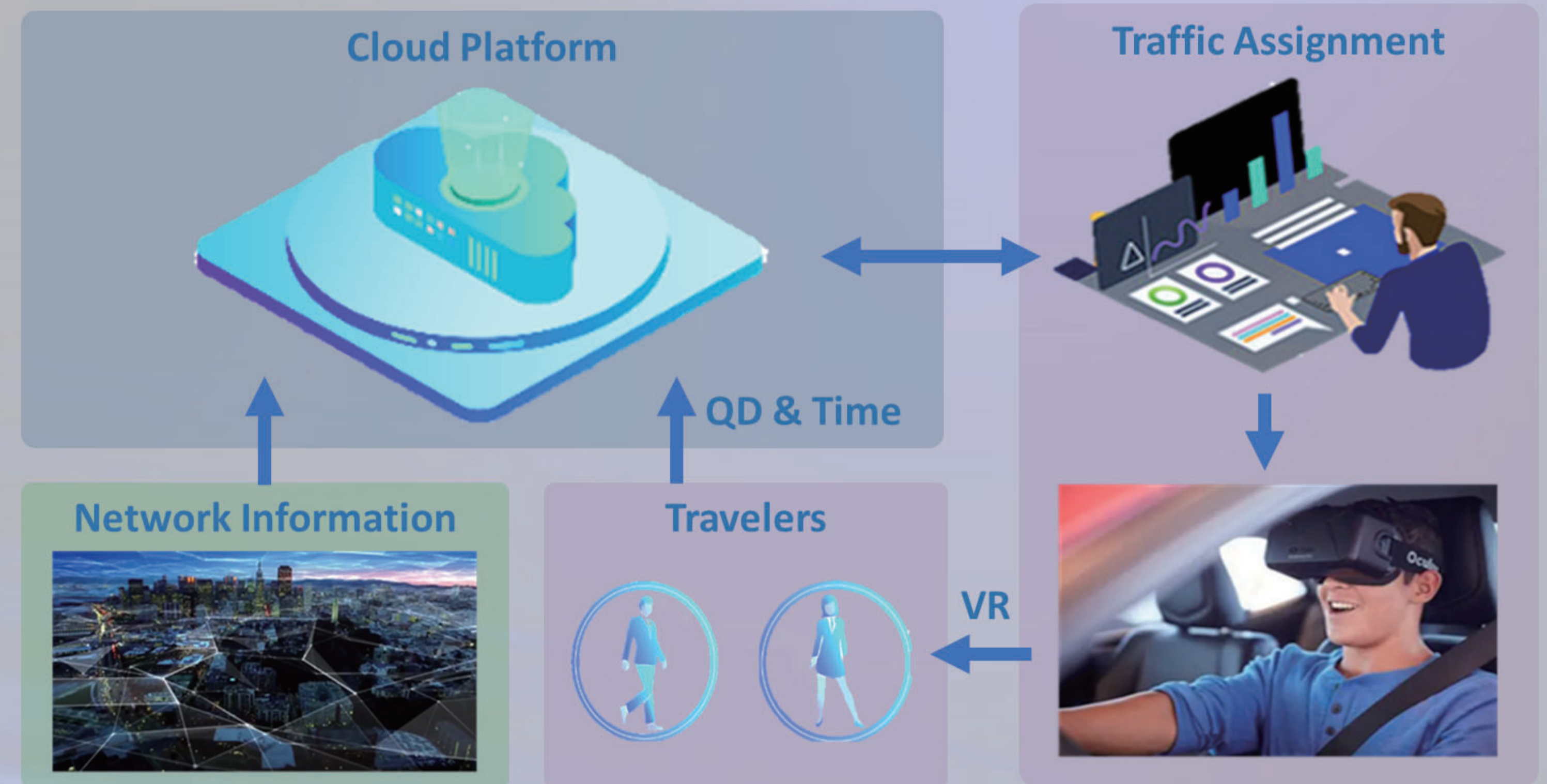
The network is the link among road travellers. The timely acquisition of travel information (OD & travel time) of travellers and timely feedback to reserved travellers can enhance the connection between travellers. Our team uses VR to feedback the information. This simulator could improve people's perception of future routes and the network and help strengthen the connection among travelers.

Method

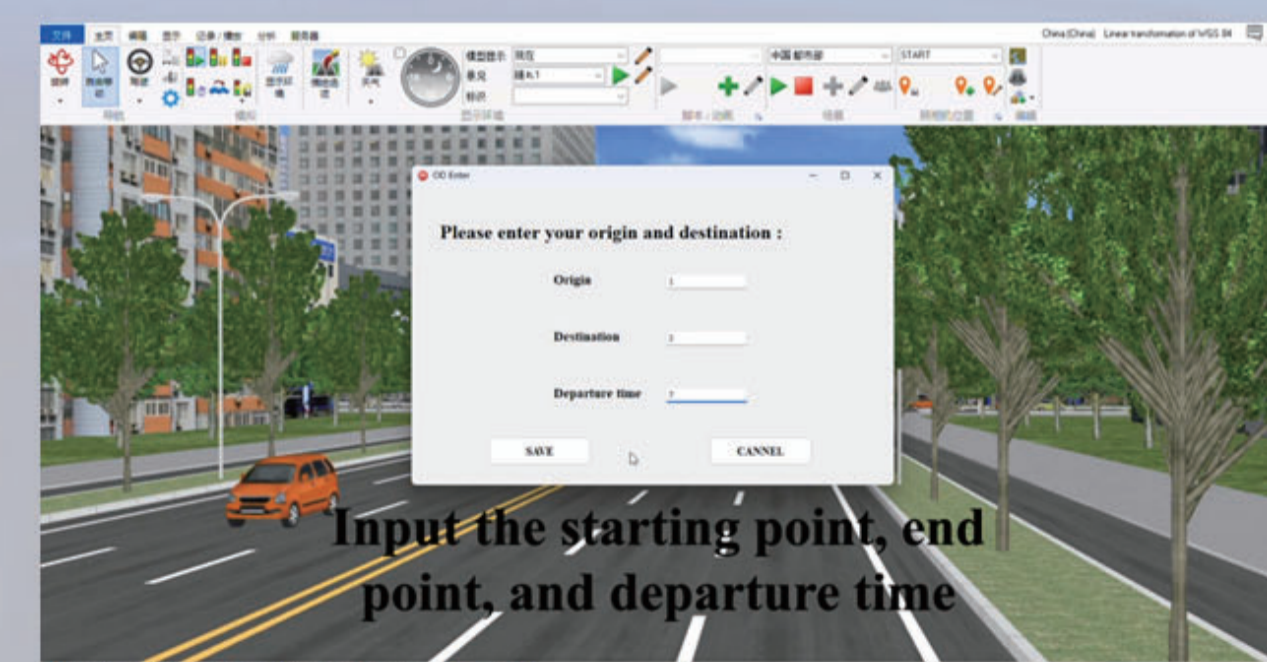
The software operates in the following three main steps:

1. (Submit Information): The software will display the "OD Enter" screen to input travel origin, destination and departure time. This is the itinerary provided by this program and the real-time traffic data of the current road network.
2. (Feedback): The software will calculate the submitted information and display the reservation rank to the user. If the user like the feedback, then the user will run this to find the recommended path for the user.
3. (Result): Finally, the software will display the result with the recommended path for the user. So, the user can start driving on the recommended path provided by the scheme without any objection.

Major Functions



- ✓ Reserved travellers send travel time, start and end points to the cloud platform.
- ✓ Route planning is output through travel information and network information.
- ✓ Predicted traffic conditions are transmitted to travellers via VR technology.



Future Work

- We need improvement on the calculation process of travel path planning.
- Some travel routes may be adjusted on a first-come, first-served basis, which is not the best solution for a smooth road network.