

Efficient Local Routing in an Indefinitely Scalable Asynchronous Architecture

Trent Small

Abstract

Local routing is a problem which most of us face on a daily basis. Getting to where we want to be is often a challenge if we have never been there before. This study proposes a comparison between several routing methods in a procedurally generated city in an attempt to discover an optimal routing method. Built using the Movable Feast Machine, this routing approach includes self-building streets which support vehicles, and building which both create and accept vehicles. Efficiency is measured by the amount of time a vehicle takes to arrive at its destination.

Conclusion

One of the primary routing methods which was studied includes keeping neighborhood information at each location on a street, insisting correct routing at intersections. This method produces the most correct routing behavior over other methods, which include keeping track of passing cars, and pre-programming cars with routing information.