

A large number of white cars are arranged in a grid pattern, receding into the distance. In the foreground, a single red car is positioned at an angle, facing towards the left. The cars are rendered in a clean, minimalist style with soft shadows.

# Product Update H2 2009

North American UGM

October 2009

**Quadstone**Paramics

cutting edge traffic and pedestrian microsimulation software

## Overview

---

- **Paramics 6.6 review**
- **Product steering group**
- **Paramics 6.7 / UAF 1.2 key features**
- **Paramics 7.0 / UAF 2.0**
  - Details / data / ease of use
  - Actuated control
  - Pollution & the environment
- **Partnerships**



3AM Solutions

Autodesk



bing

## 6.6 Review

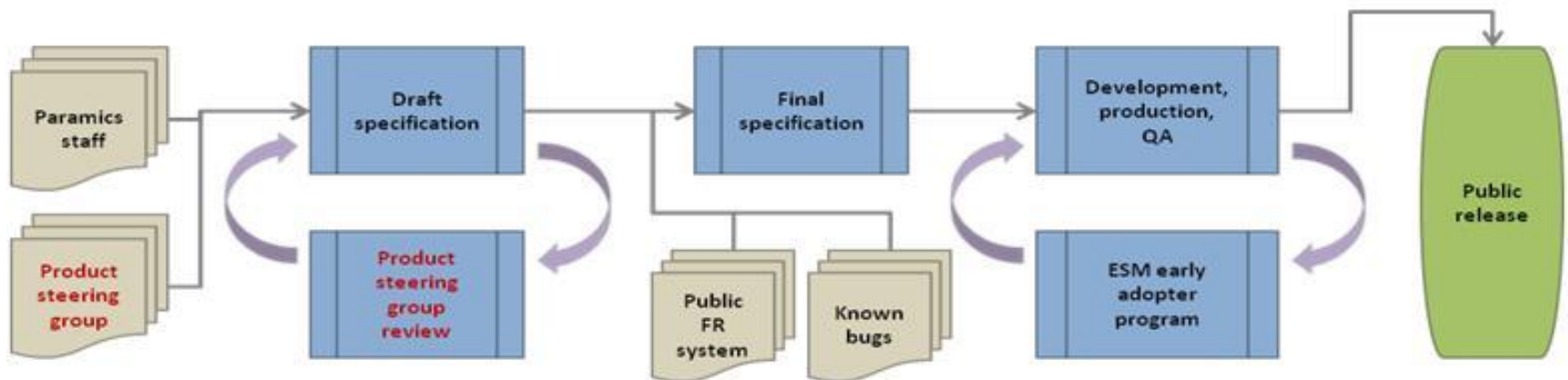
---

- **A “low key” release but packed full of great features**
- **SketchUp support**
- **CAD surface models**
- **First round of user suggested feature requests**
- **Major additions**
  - **HOT – High Occupancy Dynamic Tolling**
  - **VSL – Variable Speed Limits**
  - **Both produced with extensive user input**
- **6.6 VSL and HOT work defines the template for major future development**
- **Whitepapers & extensive user consultation**

## Product Steering Group (PSG)

---

- Kicking off for Paramics 7.0 / UAF 2.0
- Key user involvement at specification stage
- Public whitepapers canvassing feedback
- What are the features you need to be competitive in the future



- More participants required – I'll be in touch!

## Paramics 6.7 Key Features

---

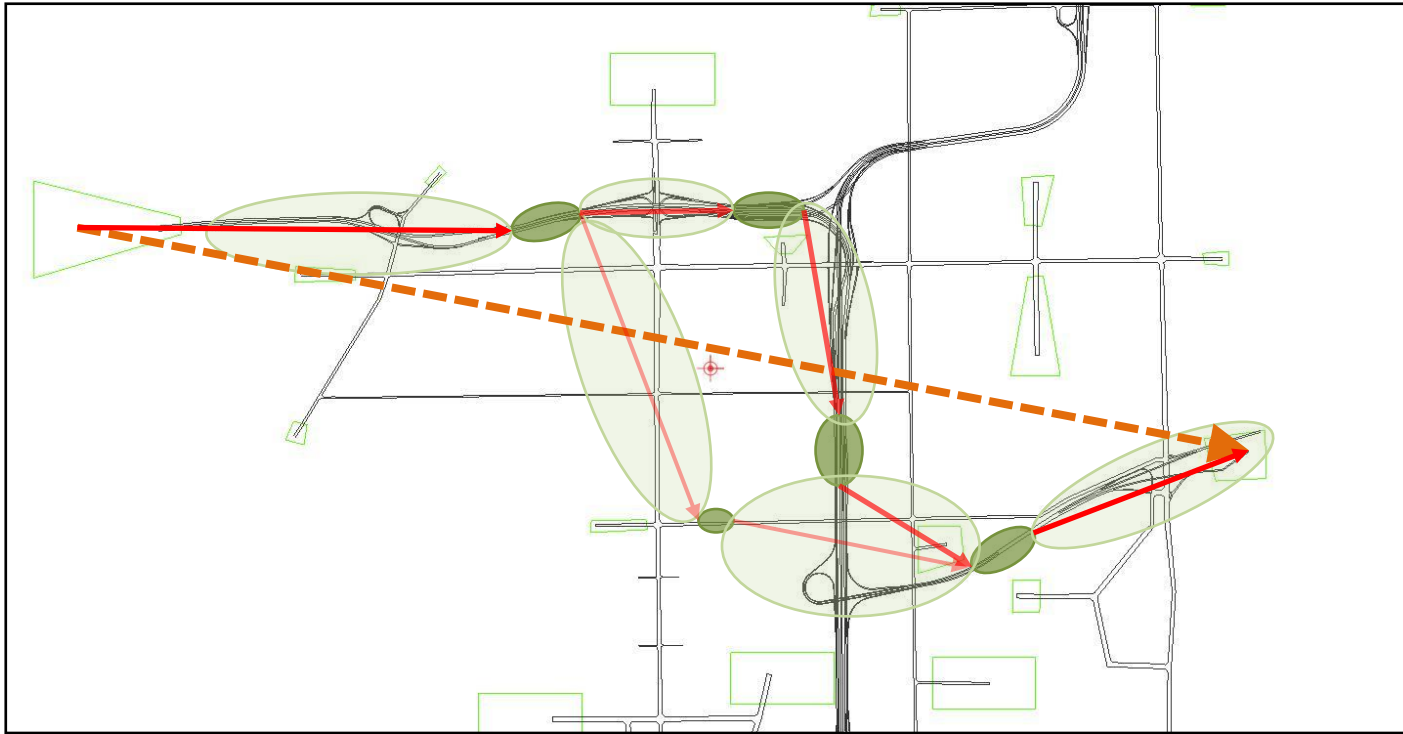
- **Core Model**
  - Driver level headway/reaction factors
  - Lane change aggressiveness in weaving areas / intersection approaches
  - Strategic waypoint route choice\*
  - Nextlane distributions\*
  - Major Lanechoices extension\*
- **Tools**
  - Route choice diagnostics & historic paths
  - Estimator ease of use and diagnostics
- **Data**
  - Queue measurement over multiple links
  - Probe vehicles
  - Analyser improvements

## Paramics 6.7 – Strategic Waypoint Route Choice

---

- Localised delays shouldn't dictate changes in strategic route choice
- Drivers think about long trips as series of segments
- Waypoints define the key milestones on a journey
- Your choice of assignment algorithm joins the dots
- Usual Time, Vtype, OD filters
- Can also be used in Estimator
- Transparent and easy to use

## Paramics 6.7 –Waypoints Example

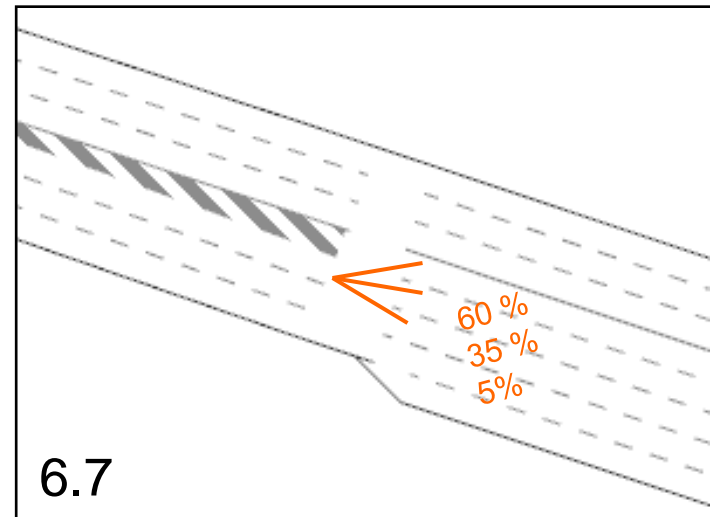
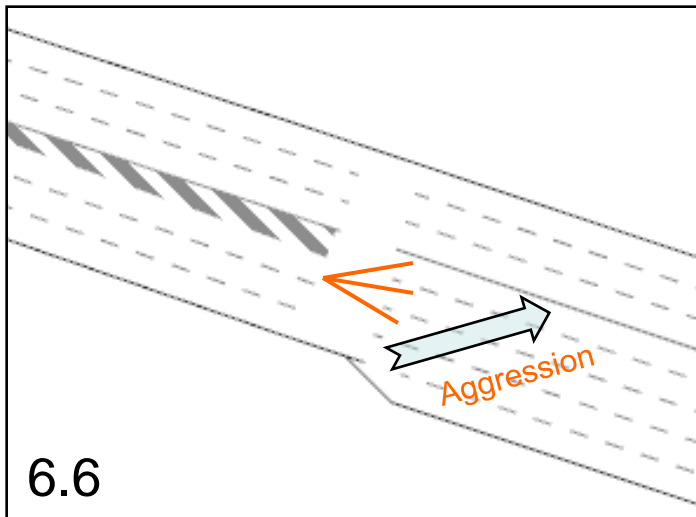


- Driver OD trip
- Waypoints
- Strategic route choice through waypoints
- Dynamic routing areas

## Paramics 6.7 - Nextlane Distributions

---

- Improper application causes many lane usages problems
- Lack of control in existing system
- Now possible to define distributions from source lane to range of specified target lanes



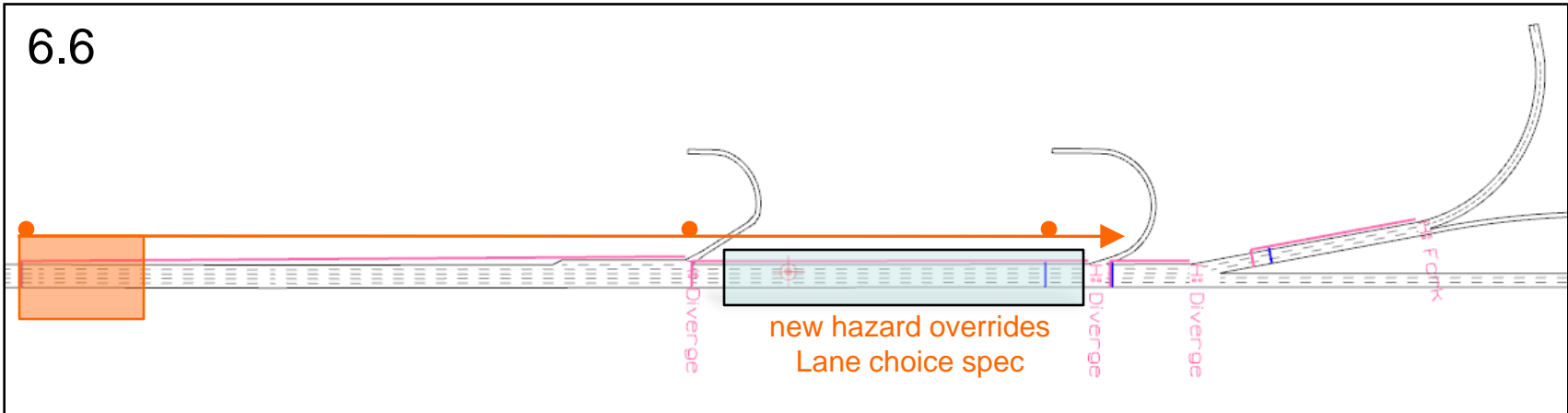
## Paramics 6.7 - Major Lanechoices Extension

---

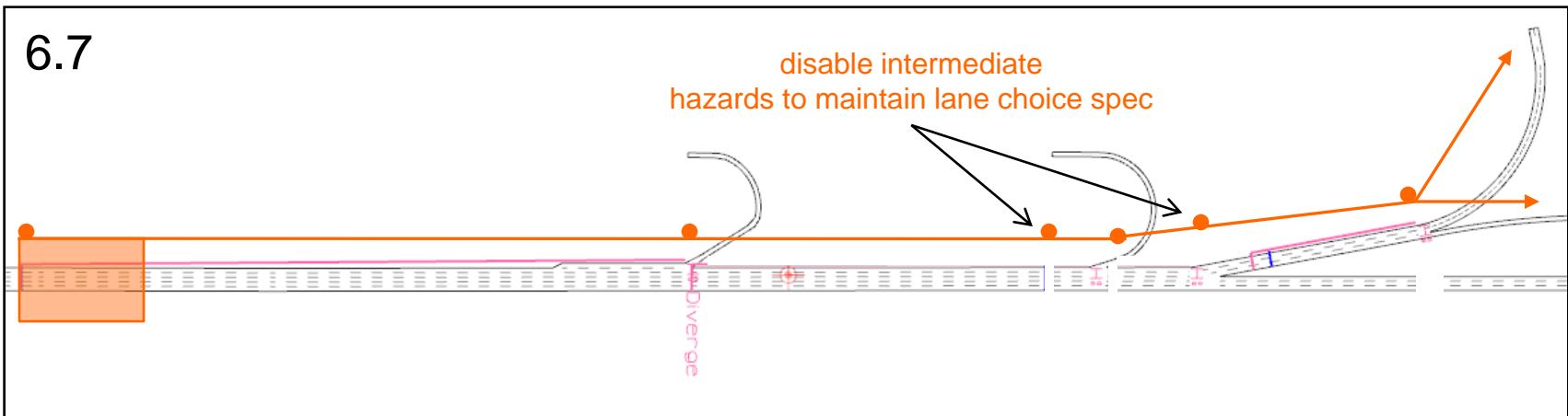
- Lanechoices added in V5 to supplement Signposts
- Signposts + Lanechoices still have limitations
- Now Lanechoices can be specified at any location
- Look ahead extended to N links
- Options for
  - Persuasive lane range setting
  - Brute force control
- Default signposts can be turned off at specific locations allowing Lanechoices to propagate beyond hazards

# Paramics 6.7 – Lanechoices Example

6.6

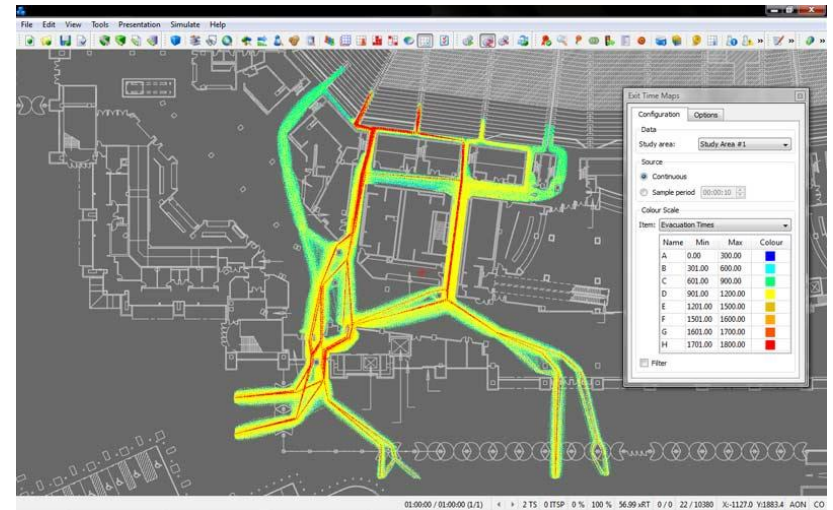
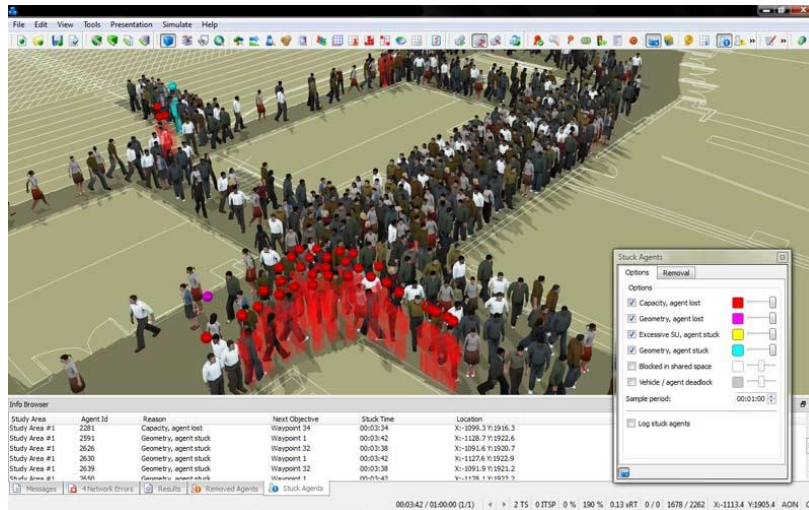


6.7



# UAF 1.2

- Time maps - activity, occupancy, delay
- Network wide metrics
- Improved behaviour regions
- Automated reporting to Log dir's
- Doubled simulation speed, reduced memory usage



## Paramics 7.0

---

- **Details / data / ease of use**
  - More focus at intersection design level
  - Improved editor / navigation
  - GIS linkage & geodetic support
  - Intersection LOD & spatial awareness
    - Turing arcs
    - Collision detection
    - Gap acceptance & improved priority controls
- **Major features for PSG discussion**
  - Actuated signals NEMA/170
  - Monitor - how far to take pollution modelling ?
  - Signal optimisation – do you need this?
  - New MOE / Analyser data
    - J-Time variability / speed plots / VMT & VHT / path metrics / signal performance

## UAF 2.0

---

- **Multi Level**
  - Stairs
  - Escalators
  - Walkways
  - Elevators
- **Simplified “Shared Space” approach**
  - Easier to fine tune
  - More behavioural controls
- **Speed Improvements**

## Partners – Key Focus Areas in 2010

---

- **CAD integration – Autodesk / Bentley**
  - Improved workflow
  - Data sharing
- **Mapping – Google / Bing**
  - Geodetic support
  - Accessibility
  - Non specialist data presentation
- **Data sources**
  - Digital mapping
  - Emissions factors
- **Presentation – 3AM Solutions**

## Partner Example - 3AM Solutions (6.7)

---

- **Ultra high quality rendering for presentations**
- **Easy integration with Paramics tools and CAD design tools**

**Imported data linked to  
car models and rendered  
with Seattle context model**

(demonstration only, not representative of any particular option)

## Timeframe

---

- **Product steering group activities – now!**
- **6.7 / 1.2 - approx. 6 – 8 weeks**
- **7.0 – June 2010**
  
- **ESM customers can have feature complete beta's anytime**
- **ESM customers can request schedule changes to suit their project needs**