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**SIXTH FRAMEWORK PROGRAMME  
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SUSTAINABLE DEVELOPMENT, GLOBAL CHANGE & ECOSYSTEMS  
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# **CityMobil**

**Towards advanced transport for the urban environment**

## **Simulation of Personal Rapid Transit**

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Author(s)	ATS
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## 1 Preface

The following output is a CityMobil deliverable which has the status “other”. This means that the deliverable is not a written report, but rather an achievement.

## 2 Description

D1.2.3.2: Simulation of Personal Rapid Transit is a computer program which permits the user to construct a PRT network against a map or aerial photograph of a selected area and examine the operation of individual PRT vehicles as they collect and transport passengers around the network. The characteristics of the system are those of ATS’s ULTra PRT system of 4-seater battery-electric vehicles travelling at a maximum speed of 40kph.

The software enables the user to demonstrate a wide range of potential PRT applications using any configuration of guideways within an area of the user’s own choosing up to 5km square. It enables the user to:

- build a network of guideways, stations and depots against a map of the area selected
- edit the network, changing interconnections and stations
- determine the level of demand at each station
- either allow the simulation to construct an origin-destination matrix accordingly, or adjust the matrix by hand
- run the simulation, either in real time or much faster than real time
- see how the individual vehicles are controlled to wait at stations until passengers arrive and then directed to the requested destination station
- see how empty vehicles are called to stations where passengers have arrived when no vehicle is waiting
- see how many passengers are waiting at each station
- see how many vehicles are at each station, waiting empty, unloading or loading passengers
- see the mean waiting time at each station and overall, and the number of vehicles required

The Deliverable consists of a zipped program package, atscitymobil-setup4, which contains all the files necessary to install and run the simulation, together with a User Guide and Tutorial. The package in prototype form has been distributed to a small selection of interested users to check whether there were any problems in installing and using it. With a few amendments to the User Guide the simulation package is now made available for public use.

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