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**Predictive Pedestrian Model (PPM): Version 0.**

The first deliverable aiming at finding the integration methods consists of the following files:

1. a python function and its corresponding PKL file as the model (BasicModel.py and Model\_V0)
2. PedModel.py: A simple python that reads and runs Model\_V0 with a specified input
3. The docker file to run PedModel.py

This document presents a short summary of the files submitted to !iMPORTANT.

1. **Base Model:**

The base function in charge of prediction is provided in BasicModel.py, and saved as a PKL file Model\_V0). As per the statement of work, the function is a simple function, developed for the purpose of integration issues. Given a pedestrian is located at *(X0,Y0)* at time *t* and is directed towards the final destination of (*Xn,Yn),* Model\_V0 predicts the location of the pedestrian at time *t + ∆* assuming a constant speed of *S*. Variables that needs to be given to the model are *S, ∆t, (X0,Y0) and (Xn,Yn).* The model is saved in a PKL file provided (Model\_V0.pkl)

1. **Implementation model**

To run the base model, PedModel.py is provided. The file opens Context file and Position file from the \logs folder and appends the new position of the pedestrian to the position file. two sample dictionaries are defined as context and position. Both context and position are text files which can be modified manually per different conditions. Context file includes: Destination position, Speed (m/s) and time intervals. Position files includes the positions of the user on different time frames. PedModel assumes the last position registered on Position file as the current location and appends the new location to the end of the text file. Upon the request of the client, input files format and data included can be modified.



1. **Running in docker**

To run PedModel.py in the docker, run the following commands in terminal/command line in the directory of the docker file: ~/PedLocation/Models

