```
Car
\# traffic : Traffic&
# m type : CarType
# m from: unsigned object id type
# m to: unsigned object id type
# m step: unsigned object id type
+ Car(traffic : Traffic&, CarType type : CarType = CarType : :NORMAL)
+ init()
+ step()
+ from(): osmium::unsigned object id type
+ to(): osmium::unsigned object id type
+ get step(): osmium::unsigned object id type
+ get type() : CarType
+ set type(type : CarType)
+ to node(): osmium::unsigned object id type
+ get max steps(): osmium::unsigned object id type
+ nextEdge()
+ nextSmartEdge()
+ print(os:std::ostream \mathcal{E})
+ operator« (os: std::ostream&,c:Car&): std::ostream&
```

```
AntCar
```

- + alist : AdjacencyList
- + $\overline{alist_evaporate : AdjacencyList}$
- $-\operatorname{rnd}:\operatorname{bool}$
- + AntCar(traffic : Traffic&)
- + nextSmartEdge()
- $+ print(os:std::ostream \mathcal{E})$
- + ant(): osmium::unsigned object id type
- + ant rnd() osmium : :unsigned object id type
- + ant tetnd() osmium : :unsigned object id type
- $+ \ ant_mrernd() \ osmium : :unsigned_object_id_type$

```
SmartCar
```

- m_guided : bool - m_routed : bool
- route : vector<unsigned int>
- $+\ SmartCar(traffic: Traffic\&,\ CarType\ type: CarType,\ guided: bool)$
- + step()
- + init()
- $+ print(os:std::ostream \mathcal{E})$
- + get guided(): bool
- + set_route(route : std : :vector<unsigned int>&) : bool
- + nextEdge()
- + nextGuidedEdge()
- + set fromto(from : int, to : int) : bool

CopCar

```
\# m_num_captured_gangsters : int
```

- $\#\ m_name:string$
- $+ \ CopCar(traffic: Traffic\&, \ guided: bool, \ name: const \ char*)$
- $+ \ print(os:std::ostream \mathcal{E})$
- $+ get_name() : std : :string$
- $+\ {\tt get_num_captured_gangsters():int}$
- + captured gangster()