Top-level system

```
system ADS
properties
  Period => 3sec;
  EnvAADL::Sampling_Time => 10ms..30ms;
  EnvAADL::Response_Time => 40ms..60ms;
  VehiclePhysics::Mass => 1500;
  VehiclePhysics::Length => 2.0;
  VehiclePhysics::CRotInert=> 1.2;
  VehiclePhysics::CRollResis => 0.015;
...   ...
end ADS;

system implementation ADS.impl
subcomponents
Plant:system Plant.impl
Env:system Environment.impl;
Contl:process ControlProcess.impl;
... ...
connections
C1:port Env.Efriction->Contrl.Efriction;
C2:port Env.Eslope -> Contrl.Eslope;
C3:port Env.Ex_env -> Contrl.Ex_env;
C4:port Env.Ev_env -> Contrl.Ev_env;
C5:port Env.Ea_env -> Contrl.Ea_env;
C6:port Plant.Ecurr_xego -> Contrl.Ecurr_xego;
C7:port Plant.Ecurr_vego -> Contrl.Ecurr_vego;
C8:port Contrl.Econtl_aego->Plant.Econtl_aego;
... ...
end ADS;
```

Plant component

```
system Plant
features
Ecurr_xego: out data port;
Ecurr_vego: out data port;
Econtl_aego: in data port;
... ...
properties
   EnvAADL::isPlant => true;
end ADSController;

system implementation Plant.impl
subcomponents
x_ego:data{Data_Model::Real_Range=>0..0;};
v_ego:data{Data_Model::Real_Range=>10..10;};
a_ego: data{Data_Model::Real_Range=>0..0;};
... ...
connections
C1:port x_ego->Ecurr_xego
C2:port v_ego->Ecurr_vego
... ...
properties
EnvAADL::ContinuousDynamics =>
   "x_ego'=v_ego;v_ego'=a_ego; ...";
... ...
end Plant.impl
```