# Summary

In 2010, Boudewijn Crooijmans investigated the capabilities of Design-time Components (DTC) in Delphi. In his research, he gives a description of how a DTC is implemented in a Delphi application and recommends further research in the usage of components in combination with Tomas simulations making code reuse possible.

This research continues where Crooijmans ended and investigates the possibilities for using a DTC in combination with Tomas simulation. The following research question is set up:

*"Are Delphi components compatible with Tomas simulation, in a way so that code reuse is possible?"*

First, a description is given of the operation of a DTC, and the way in which it into the code hierarchy of Delphi positioned is with hereby a comparison the structure of the Tomas classes.

Three concepts are proposed to use DTCs with Tomas simulations; Direct implementation, "wrapping" and default properties of a Delphi component. Direct implementation shows little feasibility in practice because the combination of the hierarchy of Tomas elements and DTCs is not unitable. Also the "wrapping" technique shows no real practical implementabilty as the communication of Tomas code in the component and the implementation in a program does not work in the right way. Lastly the usage of the standard component properties is studied, in which only certain variables are stored in a DTC.

On the basis of a case study in which a vehicle within a XY coordinate system repeatedly has to move to different coordinates a validation on the standard component property concept is perfomed.

The following conclusions are drawn:
- Using standard component properties it is possible to use DTCs for code reuse for tomas simulation.
- Although possibilities exist to use DTCs in combination with Tomas code, the added value in code re-use is limited. A greater advantage can probably be achieved in making subclasses of Tomaselements.