

0.1 Technical memo — Model-view-controller separation

Type

Architectural

Factor

- How to separate the ways of viewing the data in the animation from the internal representation of the animation.
- How to allow several simultaneous views of the animation without high coupling to the data representation of the animation .

Solution

Use of model-view-controller[CITATION: POSA] to separate the internal representation of the animation data in the program from the ways of viewing the data. The model-view-controller can be implemented through the use of the observer pattern[CITATION: GOF].

Motivation

A robust way of viewing the animation so that the way it is displayed isn't dependent on the animation model. This makes it easier to change either the model, or the ways of displaying it (teh GUI) later without having to make changes in several layers.

Unresolved issues

Alternatives considered

- Direct coupling between the model and the display classes – This makes it harder to replace or change one of the parts later.
- An GUI Facade in the presentation layer to separate the viewing from the model – We consider the model-view-controller to be more flexible and robust when using several simultaneous views.

See also

- The arhitecture and design models for class and sequence diagrams explaining the implementation details.