**Visual model designer**  
  
That's what business analysts and beginners expect first of all. We're going to build it over [**Visual Studio DSL Tools**](http://msdn.microsoft.com/en-us/library/bb126235.aspx). I always though this is pretty hard problem, but after looking on DSL tools closer I discovered it must be much simpler than I though. Moreover, MEScontrol developers successfully use model designer built by MESware for integrators (it generates v3.9 models) - it is based on  DSL tools. So there is already a kind of prototype we can look at. Let's describe what our designer must do:

* Design persistent models - add, edit and remove persistent classes (Entities, Structures and EntitySets) and properties there;
* Support application of all DataObjects.Net attributes, such as [Association]; it must be possible to define mappings there as well.
* Provide customizable [**T4 template**](http://tips.x-tensive.com/2009/05/built-in-visual-studio-2008-code.html)-based code generation of entity code. Obviously, we'll generate partial classes you can extend with your own code.
* Support modelling of IUpgradeHandlers, and, likely, even their automatic updates on changes in model.
* It must be possible to reference externally defined persistent types there, including custom-typed EntitySets. This will allow to build separated models for each part of the application.
* It should support reverse engineering - a feature allowing to (re)generate the model from existing database.