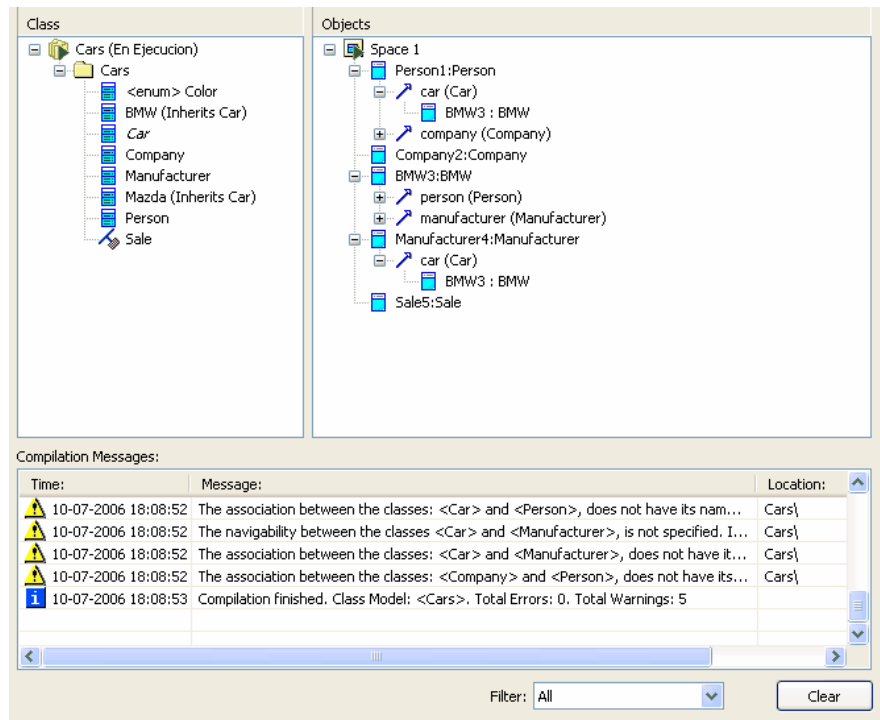


Enterprise Analyst Summary

Enterprise Analyst® (EAn) is a tool for compilation, execution and documentation of conceptual class models



Compilation goes for validation of precisely established class model notation.

Execution is for testing of a class model behavior under different scenarios.

Documentation finally produces the specification needed for a software system design and implementation tasks.

The main users of Enterprise Analyst are system analysts. The tool lets them concentrate on the domain (functional) aspects of the system and assure its correction in an early project's phase. The architects, designers and implementers may find this tool useful as well, since it can be used to quickly validate their system design solutions.

Enterprise Analyst provides a tool for rapid generation of the software system's functional prototypes.

Feature Summary

- **UML model integration**

Enterprise Analyst is an Enterprise Architect's (EA) add-in. EA is a well-known UML modeling tool and EAn uses strongly the EA's API, reusing and also complementing this tool's basic functionality.

- **Class model compilation**

- **UML Class model standard notation**

Enterprise Analyst analyses and compiles the class model assuring its compliance with the precisely defined UML compatible notation. The UML elements supported by EAn are: class, inheritance (single and multiple), association (including aggregation and composition), association class, etc.

- **Customizable compilation messages**

Enterprise Analyst provides a modeled with a precise feed-back about his class model compilation results. Just like with a usual programming language compiles, this feature gives a modeler the possibility to quickly and efficiently fix his class model syntactical errors.

- **Class model execution**

- **Object level operations (UML 2.0 actions)**

Enterprise Analyst permits a modeler to instantiate the objects from the model classes, to link them with each other, to delete them, update the attribute values, etc.

- **Automatic model constraints validation**

Enterprise Analyst validates the model constraints permanently during the execution, detecting every possible model inconsistency.

- **Inconsistency diagnostics and resolution**

Enterprise Analyst helps the modeler with the inconsistency diagnostics and it proposes the corresponding resolutions. This way, a modeler can fix the execution problems or even detect some higher, class level problems, get back to a model and improve it.

- **UML object diagrams generation**

Enterprise Analyst generates automatically the UML object diagrams that correspond to a current execution process. This feature provides a powerful model execution visualization tool from the structural perspective.

- **UML sequence diagrams generation**

Enterprise Analyst generates automatically the UML sequence diagrams that specify formally an execution session. This feature provides a powerful model execution visualization tool from the behavioral perspective.

- **Class model specification validation**

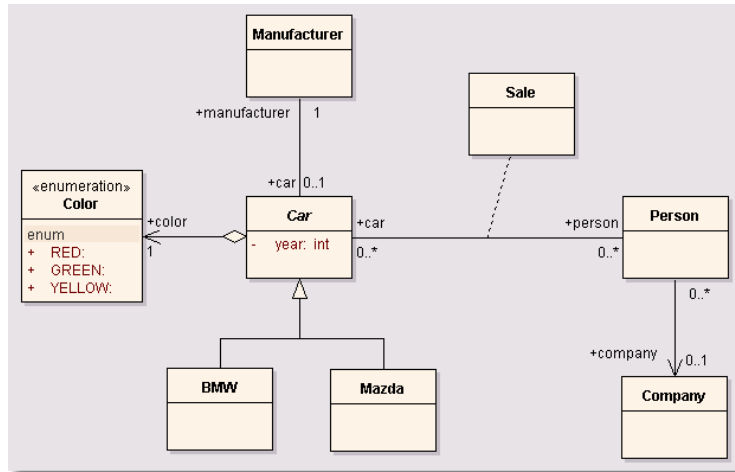
Enterprise Analyst comes with a templates needed to specify a class model, as well as the specification completeness validation feature.

Using Enterprise Analyst

Typical steps

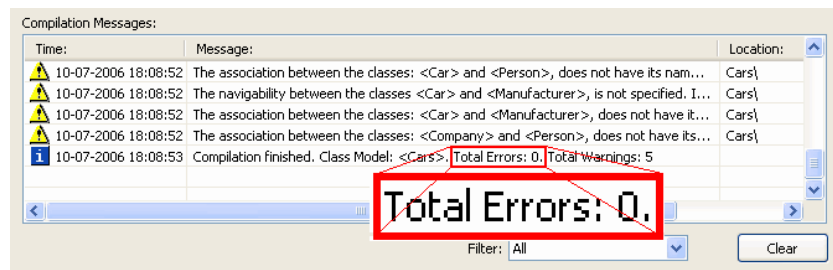
1. Class model creation

This step is done using the EAn's "host" UML tool – Enterprise Architect.



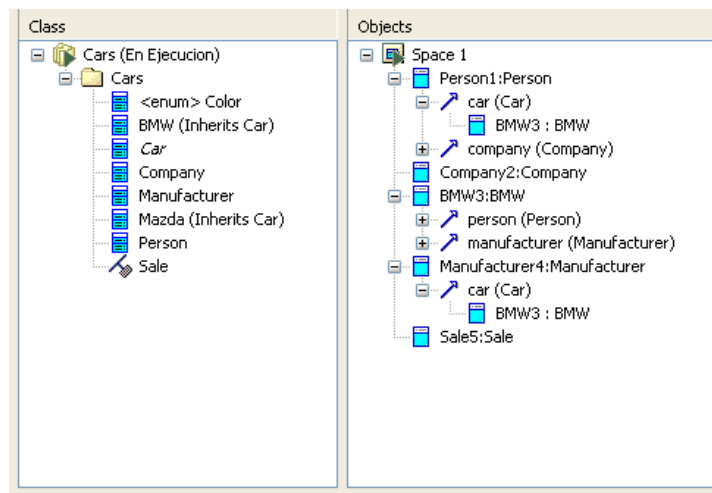
2. Class model syntactical validation

After possibly several compilation-modification-compilation cycles, similar to a source code compilation process, an error-free model will be obtained. This model is ready for the semantic validation by the means of the model execution!



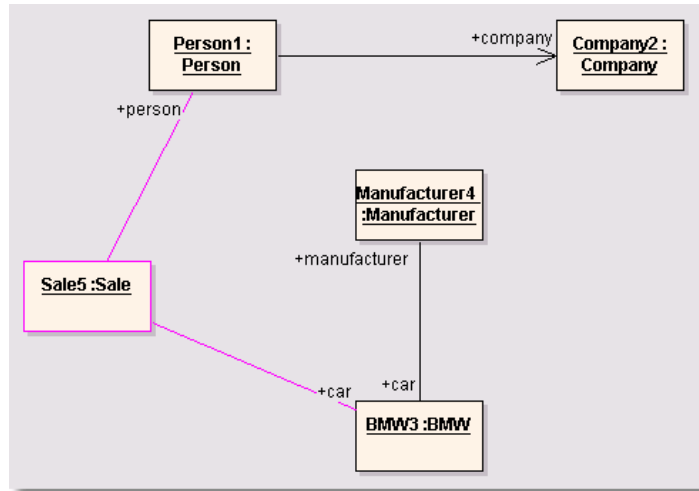
3. Class model semantic validation

Class model execution environment permits a modeler to execute well-defined high-level operations on the class model. This process is equivalent to the execution/testing of the implemented system.



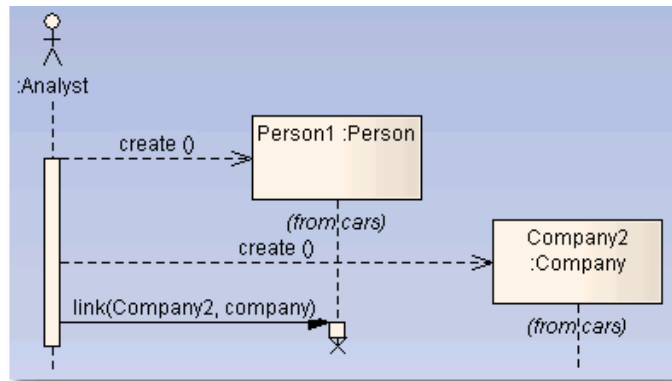
4. Object diagram generation

Analogously to system test cases that reflect the state of the implemented system, the object diagrams provide a modeler with the information about the “functioning” of his class model, visualizing the results of the conceptual class model execution process. These object “snapshots” are the class model execution samples and they back-up the execution process.



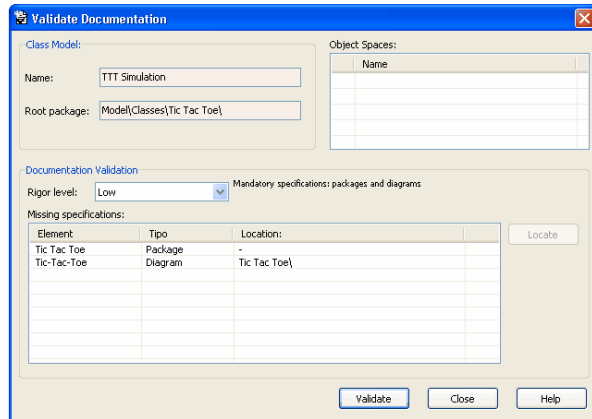
5. Sequence diagram generation

Sequence diagrams, generated automatically by Enterprise Analyst, show the execution steps performed by the modeler (Analyst) during a single session. This feature complements the object diagram generation to provide a complete mechanism for validation and ambiguity free specification of the system behavior.



6. Class model documentation generation

To produce a comprehensive, complete, but compact analysis deliverable, Enterprise Analyst incorporates the specification validation feature. To enable the documentation generation, EAn will scan the model for its specification completeness, eventually guiding a modeler through a process of specification completion. Only the models with a specification completeness level according to previously set value will be “approved” for a documentation generation.



7. Detailed design generation and/or source code generation

Enterprise Architect’s MDA transform feature can be used for further boost of the software development productivity. The conceptual class model, created by EA and compiled, validated and documented by EAn can be transformed to a detailed design model or even to source code of one of the supported platforms (C#, .NET, Java, EJB, data base, etc).

For a more detailed guide about the use of this tool, please consider reading of the document “EAn Step by Step” or its User Manual, both available on the Enterprise Analyst’s web site.

System Requirements

- Intel® Pentium® Processor
- Microsoft® Windows XP or 2003
- 128 MB of RAM
- 70 MB of available hard disk space
- Display resolution 1024 x 768
- Enterprise Architect® 6.1 (release 789 or newer)