

MEMO4ADO: How To Get Started

Version 0.98

This package is meant to help getting started with the enterprise modeling method *Multi-perspective Enterprise Modeling* (MEMO) and the related modeling tool *MEMO4ADO*. In addition to this summary document, the package contains two research articles (Frank, 2014; Bock and Frank, 2016) and an example scenario model for MEMO4ADO (*MEMO4ADO Example Scenario.adl*). The notes below describe how to get started.

1. Conceptual Background

Before working hands-on with the modeling tool, it is useful to obtain a fundamental understanding of the enterprise modeling method *Multi-perspective Enterprise Modeling* (MEMO) and the basic functionality of the modeling tool. For this, the two attached research articles may be studied.

- **MEMO**
 - Please study the *introduction of section 3* in the article Frank (2014). This paragraph describes the *basic aim* and *components* of the enterprise modeling method MEMO.
 - Please study *sections 3.1* and *3.2* in the article Bock and Frank (2016). These sections provide a focused overview of the different *modeling languages* of MEMO, and they present a *high-level example* of how these modeling languages are interrelated.

- **MEMO4ADO**
 - Please study *section 4.4* in the article Bock and Frank (2016). This section describes the *basic functionality* and the *diagram types* that are currently available in the modeling tool MEMO4ADO. The section also illustrates how the different diagram types are interrelated. Finally, the section indicates along general lines how models based on the different MEMO languages can be constructed and used.
(*Note: the modeling language IT infrastructure modeling language MEMO ITML and the related IT Infrastructure diagram type are not yet considered in that paper. However, they are included in the example below.*)

Aside from the sections mentioned, you may study the articles as a whole in order obtain knowledge about the theoretical background and (meta) modeling architecture of MEMO. However, the sections cited are most relevant for getting started with the tool.

2. Tool Introduction Example

In order to get in touch with the tool, it is convenient to explore an existing example enterprise model that incorporates models created with each of the different MEMO modeling languages.

2.1 Import the model

Having launched MEMO4ADO, navigate to *Import/Export* (Step 1 in *Figure 1*). Click on *ADL import* (Step 2 in *Figure 1*). Select the ADL file provided in this package, check the box „*Import objects from other library*“, and confirm.

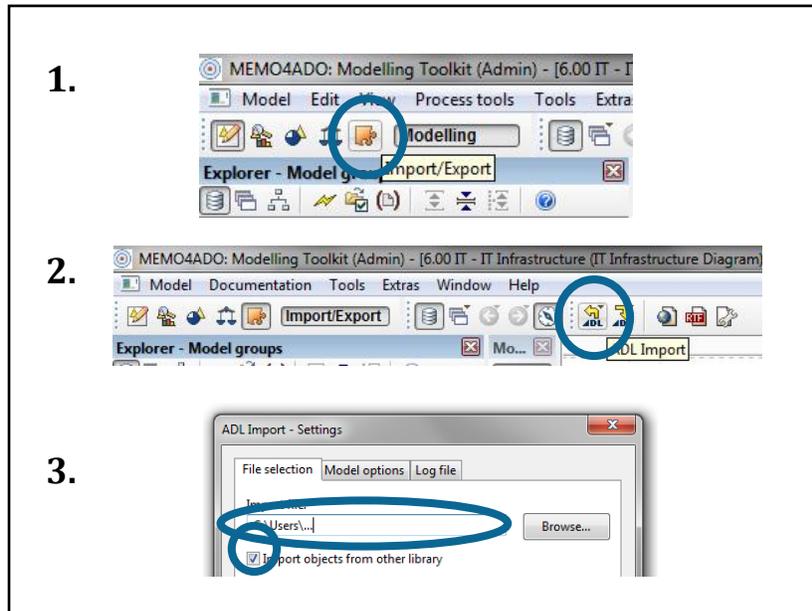


Figure 1. ADL Import

2.2 Explore the model

Once the example model has been imported, the *Explorer* view on the left-hand side of the modeling tool will show the list of diagrams included in the example scenario (see

Figure 2). You can open the different models by double-clicking them.

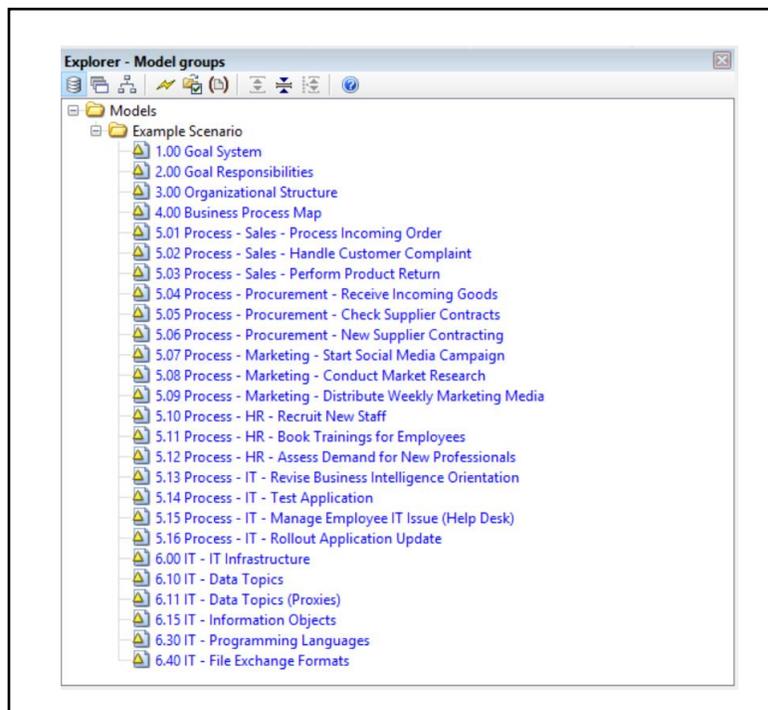


Figure 2. Model Explorer

The example enterprise model includes a number of diagrams created with different MEMO modeling languages that describe different perspective on an enterprise. These include:

- MEMO GoalML Goal System Diagram (section *a.* in *Figure 3*)
- MEMO GoalML/OrgML Goal Responsibility Diagram (*integrating* Goals and Organizational Structures)
- MEMO OrgML Organizational Structure Diagram (section *b.* in *Figure 3*)
- MEMO OrgML/GoalML (*integrating* Business Processes and Goals)
- MEMO OrgML Business Process Control Flow Diagram (section *c.* in *Figure 3*)
- MEMO ITML IT Infrastructure Diagram (*integrating* Business Processes and IT Infrastructures; section *d.* in *Figure 3*)

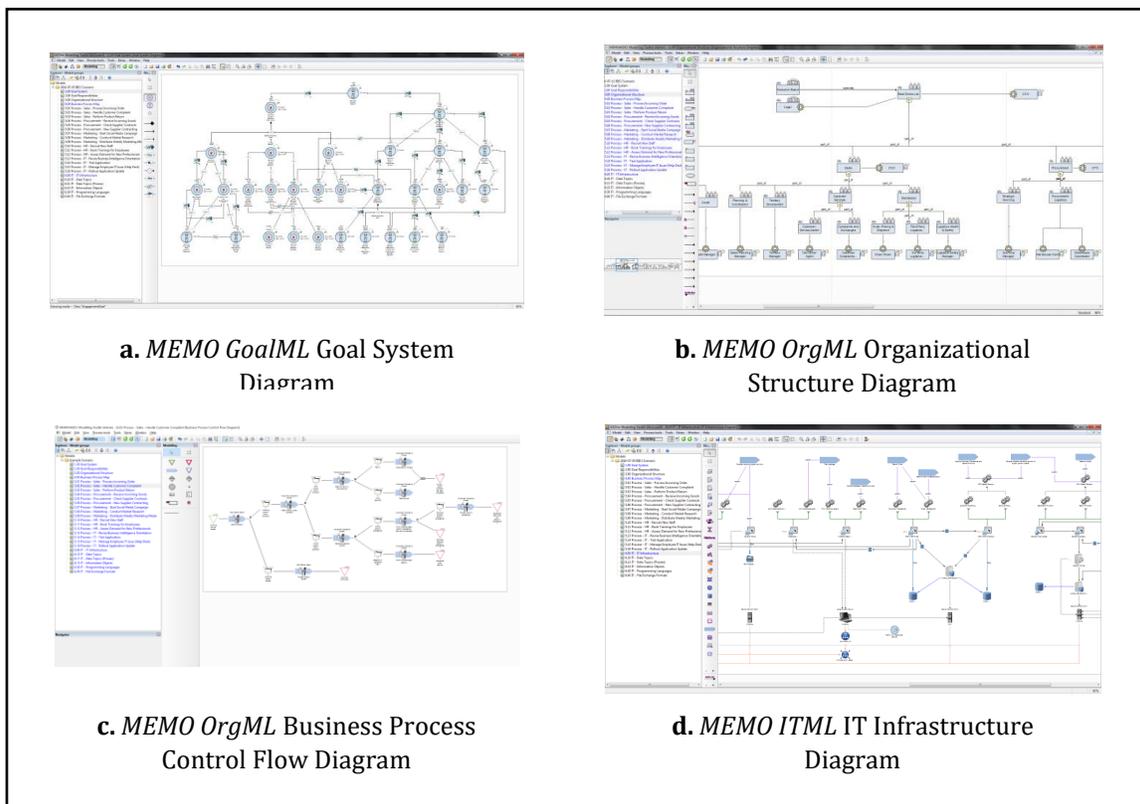


Figure 3. Example Diagrams

In order to make yourself familiar with the conceptual scope of MEMO enterprise models, explore the different diagrams that represent parts of the overall enterprise model. In particular, try to answer the following basic questions:

- What areas (or: *domains*) within an enterprise are described?
- What kind of *links* between the different parts do you detect?
- How are *business* and *IT* model elements *interrelated*?

From that vantage point, you have obtained an initial overview of the MEMO and MEMO4ADO capabilities. However, this is only a starting point. All of the different MEMO languages feature a great number of conceptual details (such as concept attributes and nuanced relationships). Taken together, these languages enable a wealth of *in-depth* and *interdisciplinary analysis scenarios* for various sub-domains of an enterprise. In order to become familiar with these advanced capabilities, please refer

to the full publications that introduce specific modeling languages. All of these are cited in the papers provided in this package.

References

Bock, A., and Frank, U. 2016. "Multi-Perspective Enterprise Modeling—Conceptual Foundation and Implementation with ADOxx," in *Domain-Specific Conceptual Modeling: Concepts, Methods and Tools*, D. Karagiannis, H. C. Mayr and J. Mylopoulos (eds.), Berlin, Heidelberg, New York: Springer, pp. 241–267.

Frank, U. 2014. "Multi-perspective enterprise modeling: foundational concepts, prospects and future research challenges," *Software & Systems Modeling* (13:3), pp. 941–962.