

Building enterprise models using Fractal Enterprise Model (FEM) and FEM toolkit - abstract

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Abstract

The tutorial goal is to give the attendees enough knowledge on the Fractal Enterprise Model and the supporting tools so that they can start building FEM themselves. FEM is an enterprise modeling technique that has four concepts and several types of relations between them. Two of the concepts, *process* and *asset*, are designated to describe the internal structure of an enterprise. Two other concepts, *external actor* and *external pool*, are designated to describe the environment in which the enterprise operates. The relations show the dependencies between the concepts. FEM can be used for various goals, e.g.: (1) building a model as-is to better understand how the enterprise operates or to find weak spots or missing activities or assets; (2) building a to-be model in case some organizational change is planned, for example changing the old IT systems for modern ones, (3) planning radical change, e.g., in case the enterprise has a risk of going out of business.

The tutorial consists of three parts:

1. Introduction to FEM and FEM toolkit – how to build a package of interconnected FEMs using the FEM toolkit. Participants are recommended to download and install the FEM toolkit on their computers before the tutorial starts.
2. Participants are split into small teams to complete an exercise based on a textual description of a business situation. They are asked to build a FEM model based on a textual description. The assumption is that at least one member of each team installs the FEM toolkit, which makes it easier to complete the exercise. The instructor visits groups to answer the questions and provide help.
3. Each group presents the result of their exercise, which is followed by a general discussion.

The description of basic ideas behind FEM already exists at <https://www.fractalmodel.org/>, which also has a page from which the participant can download and install the FEM toolkit for Windows, Linux, and Mac. The participants are also provided with examples of FEMs that they can export into the FEM toolkit. Besides the FEM toolkit, there exists the web-based FEM viewer, which allows one to see and navigate through the package of FEMs exported from the FEM toolkit. The address for the FEM viewer is <https://femviewerserver.cloud.ut.ee/>. It can be accessed by using the username/password as BIR2025/BIR025. There are some examples there.

Keywords

fractal enterprise model, FEM, FEM toolkit

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