Introduction

Design

A new Functional Profile is based on a Base Model. This can be the EHR-S FM (starting with Release 2.0) or an existing Functional Profile (based on the EHR-S FM R 2.0). From the Base Model a Profile Definition is defined. This Profile Definition is based on the so called Compiler instructions that were implemented in the tool based on the design of the tool (see figure 1). After defining the Profile Definition the new Functional Profile can be compiled. The Profile Definition, the Base Model and the Compiled Profile are modeled in a UML model. In other words they are related, so the Profile Definition uses the Base Model and creates the Compiled Profile.
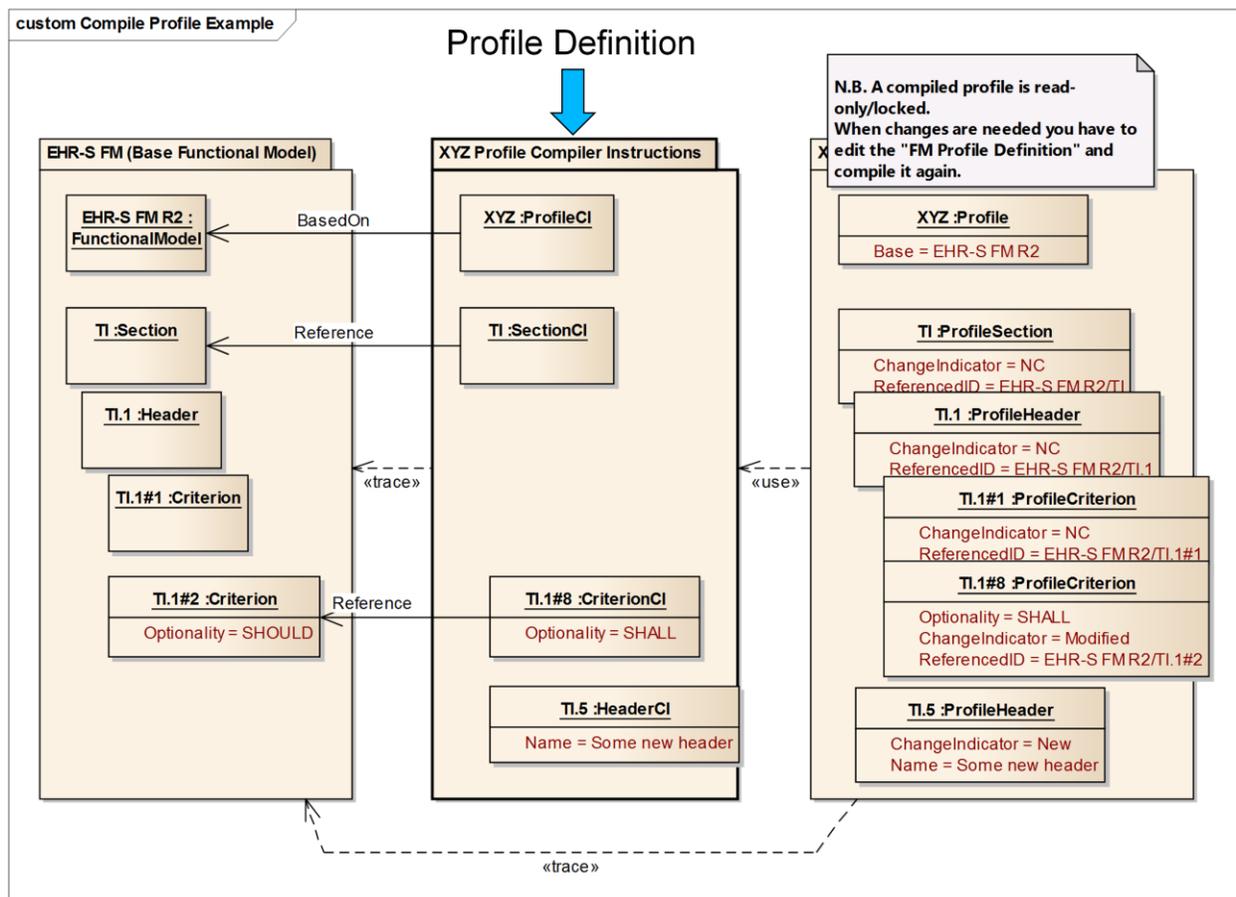
Figure 1. Compile Profile example.

The Profile Definition is based on the Base Model. In this you define what will be included or excluded for the new Functional Profile. The Compiled Profile is based on the Profile Definition. So everything that was

included will show up in the Compiled Profile. If a parent was not explicitly included in the Profile Definition, it is included automatically in the Compiled Profile. Based on the compiler instructions you will find certain features in the Compiled Profile, for example the ChangeIndicator in the Tagged Values.

For the development of a new Functional Profile a new project in Enterprise Architect is created. See description in the EA Learning Center, section 'Create a Functional Profile'. In that new Model the following three packages needs to be created, 1) Profile Definition, 2) Base Model and 3) the new Compiled Functional Profile. See example in figure 2.
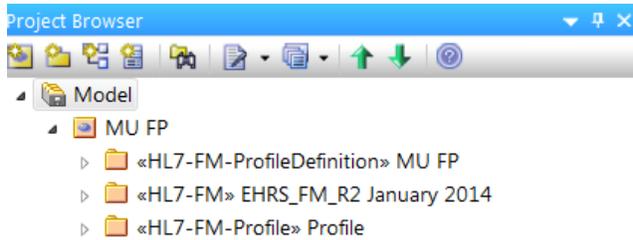
Figure 2. The three packages for the development of a new Functional Profile.

For the relationship between these three a UML diagram needs to be created in the package 'Profile Definition'. An example of such a diagram is shown in figure 3. The diagram reflects the parts as shown in the design of the tool, figure 1.

At this moment you need to create this diagram manually. However, after giving instructions to several people we intend to create a kind of template for this. Makes life easier!
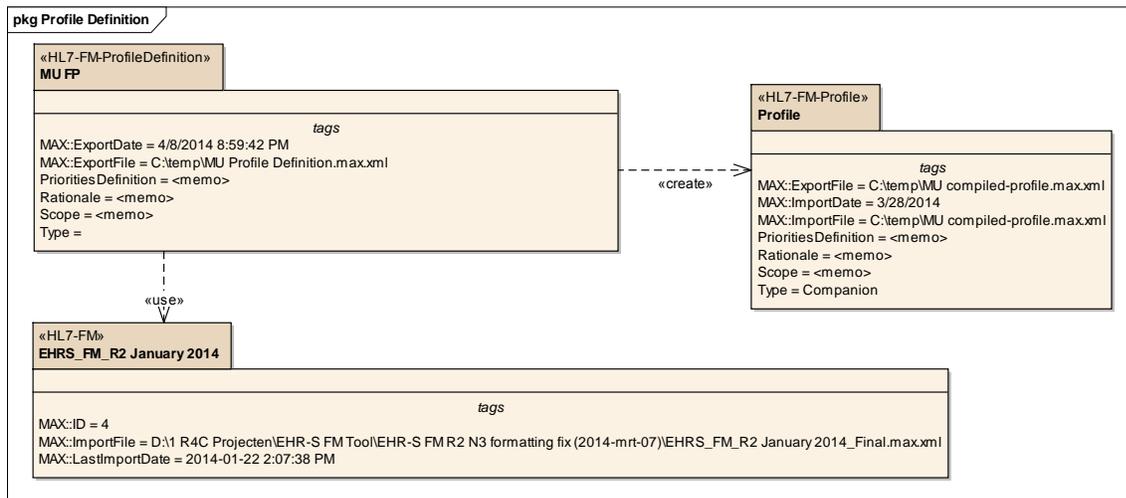
Figure 3. UML diagram for Profile Definition.

Now that you know what your goal is when you are going to create a new Functional Profile and how it looks like when you are going to use the tool, you can go and create a new Functional Profile.

Follow the steps described in:
1. CreateNewProfile
2. LoadBaseModel
3. Create package for FP
4. Provide General Information
5. Create UMLmodel NewFP
6. CreateProfileDefinition
7. Create Compiled Profile
8. Validation
9. Create Publication

The EHR-S FM as a model

In the EHR-S FM standard is mentioned that it includes a 'function list'. However, with the development of the tool and the inclusion of the content of the EHR-S FM in the tool, we are going towards a model instead of a list. Besides that functions are listed in the tool, they are also related to each other. So making changes in functions this will also affect the relationships.

An example that occur during phase 2 of the tool development:

Some criteria that comes with a function has the text 'conforms to function X.x. This means that there is a dependency between the function to where the criterion belongs to and the reference function. Criteria are included by default if you included a function in the Profile Definition. So the referenced function will appear in the Compiled Profile. In the cases during phase 2 the project teams didn't want to have these reference functions in the new Functional Profile. The solution for this is to explicitly exclude the criterion in where there is a reference to another function.

An example when creating new functions:

When you decided to create a new function in your Functional Profile (according to the rules) you have to model this new function in the context of the EHR-S FM. It is not enough to create a new function in the list with existing functions. The new function needs to be related to its parent. For example, if you want to create a new function CP.1.10, you have to model this is a diagram and relate this new function to the parent, «Header» CP.1 Manage Clinical History.

An example when creating new conformance criteria:

When you decide to create new criteria in a function (according to the rules) you have to model these new criteria in the context of the EHR-S FM. It is not enough to create these new criteria in the list of existing criteria in a function. The new criteria needs to be related to the function. For example, if you want to create two new criteria in function CP.1.9, you have to model this in a diagram and relate these new criteria to the function «Function» CP.1.9 Manage Adverse Events.

The fact that the EHR-S FM is now in EA means that the FM is really becoming a model instead of a list of functions. Be aware of this when you are working on a new Functional Profile.