



User Guide for Electronic Health Record-System Functional Model
Reader's Guide to the Tool Documentation

HL7 Tooling Work Group

HL7 EHR Work Group

**User Guide for
Electronic Health Record-System
Functional Model, Tool
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Reader's Guide to the Tool Documentation

Welcome!

Welcome to HL7's Electronic Health Record System tool documentation 2014 Release 2. This brief Reader's Guide gives you a short guided tour of the content of the various chapters of the Profiling Tool documentation and points you to associated background reference materials that will answer most of your questions.

What is the background of the current release?

The HL7 EHR-S Functional Model, which was approved in July, 2004 as a Draft Standard for Trial Use (DSTU), has undergone a series of enhancements in the past two years, as it became a fully approved American National Standards Institute (ANSI) and International Standards Organisation (ISO) standard. A broad constituency – including intensive outreach to industry, care providers, and healthcare organizations – has worked to refine the initial EHR-S Functional Model. In this development process it was experienced that the process of developing a new release was very complex and the support of a tool was needed. This release 1 of the tool contains the EHR-S FM Release 2 as a starting point for further development of the tool. Release 2 of the tool enables the user to develop a Functional Profile based on the EHR-S FM Release 2.

What documents are in this package?

The documents in this package comprise Release 2 of the EHR-S Functional Model Tool. The package zip file contains the following files:

November 2014: note that the files in this package can change over time depending on further development of the tool. The version numbers are left out intentionally.

EHR-S Functional Model Tool Documents & File Names	Content
<i>Reader's Guide</i> EHR_S_FM_TOOL_C0_Readme.pdf	Description of the EHR-S FM Tool Release 2 package content and files. This document!
<i>Chapter One: Overview</i> EHR_S_FM_TOOL_C1_Overview.pdf	Background. Purpose & Scope. Overview and Design of the EHR-S FM Tool. Anticipated Uses.
<i>Chapter Two:</i> <i>EHR_S_FM_FP_Designer_TOOL_Insta</i> <i>lling the extension</i> <i>.pdf</i>	Description of the import of the EHR-S FM in the Tool. Description of how to handle the Enterprise Architect extension.
User Guides for the use of the EHR Profile Designer Tool	There are different user guides that give the user guidance on how to use the tool as a support for creating functional profiles. The user guides are ordered in: <ul style="list-style-type: none">• How to guide:<ul style="list-style-type: none">○ How-to Guide_R2_final.pdf• Browse:<ul style="list-style-type: none">○ ReadEHRSFM.pdf○ SearchEHRSFM.pdf○ TraceabilityElements.pdf• Creation:<ul style="list-style-type: none">○ 0Introduction.pdf○ 1CreateNewProfile.pdf

EHR-S Functional Model Tool Documents & File Names	Content
	<ul style="list-style-type: none"> ○ 2LoadBaseModel.pdf ○ 2LoadBaseModel.pdf ○ 4ProvideGeneralInformation.pdf ○ 5CreateUMLmodelNewFP.pdf ○ 6CreateProfileDefinition.pdf ○ 7CreateCompiledProfile.pdf ○ 8Validation.pdf ○ 9CreatePublication.pdf • Edit FP <ul style="list-style-type: none"> ○ AddingEHR_S_FMFPcomponents.pdf ○ CollaborationFunctionalProfile.pdf ○ MovingEHR_S_FMFPcomponents.pdf ○ ProjectManagement.pdf ○ TrackingChanges.pdf • Export <ul style="list-style-type: none"> ○ ExportSection.pdf ○ Basic FM Export Table Template.rtf • Combine, compare & Merge <ul style="list-style-type: none"> ○ CombineCompareMerge.pdf • FAQ <ul style="list-style-type: none"> ○ FAQ.pdf
<p><i>Enterprise Architect explanation file with EHR-S FM in UML</i> Design Sheets from EA (2013-May-24)v5.pdf EHR-S FM Tooling Design.eap</p>	<ul style="list-style-type: none"> • This pdf file contains the following UML diagrams: <ul style="list-style-type: none"> ○ EHR-S FM R2 spreadsheet to XML schema. ○ Mapping of EHR-S FM R2 XML schema to UML Meta Model. ○ UML Meta Model 3.4 EHR-S FM R2. ○ UML representation of EHR-S FM, first draft. ○ Glossary mapping • The files are developed in a separate EA file which has these diagrams in design mode.
<p><i>Validation rules spreadsheet with rules used to develop the EHR-S FM tool</i> ValidationRulesEHR-SFMR2-20130520-AS.xls</p>	<p>Description of all the validation rules that are used to develop the validation process</p>
<p><i>EHR-S FM R2 export in MAX format</i> EHR_S_FM_R2 (import v2013-mar-29)-full.max EHR-S-FM-max-export.html</p>	<p>An export of the EHR-S FM R2 in MAX format. And a simple representation of MAX in html. The import refers to the May 2013 ballot master spreadsheet that is the basis for this.</p>
<p><i>XML Generator for EHR-S FM spreadsheet</i> EHR-S FM_R2_XML-Generator.zip (named .zap, rename to .zip to extract). EHR_S_FM_XML-Generator.pdf</p>	<p>During the creation process of the EHR-S FM Tool, the project team encountered some issues with the existing XML file from the May 2012 ballot. This was the reason to create a standalone tool that allows generating a full XML file from the Excel spreadsheet for EHR-S FM. The .pdf is the instruction.</p>
<p><i>EHR-S FM Extension</i> EHR_SFM_EA_Extension.Setup (2013-may-27).msi or EHR_SFM_EA_Extension.Setup (2013-may-27).RENAME_to_msi</p>	<p>The EHR-S FM Extension to EA as a .msi file. This is the tool. Some websites do not allow storage as .msi, so it is often .RENAME_TO_msi. Save the file on your hard disc and rename the file as described in Chapter Two Installation.</p>

EHR-S Functional Model Tool Documents & File Names	Content
	This is created in MS Visual Studio 2010 C#
<i>EHR-S FM Content for Enterprise Architect</i> EHR-S FM R2 (@GForge v2).eap	The EHR-S FM content in a for Enterprise Architect readable file (eap file). This is a ready to go file, preventing that every user should import the full.max file themselves.
<i>XSLT for MAX to HTML</i> max2html.xsl functional-model.css functional-model.scss ehr-s-fm-ballot.mif	XSLT stylesheet for the html publication of the EHR-S FM export in MAX output from EA. With Cascading Style Sheet and SCSS source file for it. The ballot MIF file adds the ballot details, cochairs and copyright statements to the html and pdf publication.
<i>XSLT from MAX to FO to PDF</i> max2fo ehr-s-fm-ballot.mif EHR-S-FM_R2-from-max.pdf	An XSLT stylesheet that allows the conversion of the html to FO and from there into PDF. The MIF contains the ballot details. The pdf with the browsable content list is the result.
<i>Validation testing of EHR-S FM via XML artifacts</i> fm-max-validation-test.xml FM-validation.sch fm-validation.xslt Validation output (2013-apr-18).txt	Set of files that validate the FM using the MAX export and external validator. The validation report is send back to the user in the EA interface. The txt document is an example of output. Every rule is tested with a pass / fail result.
<i>Source code for the EHR-S FM Extension</i> HL7 SourceCodeEHR-S FM Tool (2013-may-27).zip	This contains the visual studio 2010 C# source code for the solutions and the projects. And the MAX materials.
<i>Publication documents generated from the EHR-S FM tooling output in html and pdf:</i> EHR-S-FM_R2-from-max.html EHR-S-FM_R2-from-max.pdf	The EHR-S FM in a html format generated from the MAX export coming from Enterprise Architect. It uses a Cascading Style Sheet.
<i>Publication of the FM or FP in Excel</i> EHR-S FM_R2_XML-Generator.zip	XML Generator for EHR-S FM spreadsheet