

# FrameMaker Structure Application Development (workshop)

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# Introduction

— [ Scott Prentice, President of Leximation, Inc.

— [ Specializing in FrameMaker plugin development as well as structured FrameMaker conversions, consulting, and development. FrameMaker user/developer since 1991.

— [ Developed DITA-FMx, a FrameMaker plugin for efficient DITA authoring and publishing.

— [ Consulting for custom Help systems, creative/functional web applications, and EPUB solutions.

# Workshop tools

— [ FrameMaker — FM 8 to FM 2017

— [ Structure Application Developer's Guide and Reference

— [ Sample structure applications

# Workshop goals

— [ Targetted at the beginner app developer

— [ Review main parts of an app

— [ Clone an existing app and customize

— [ Modify template, EDD, read-write rules

— [ Some advanced features

— [ **NOTE .. we will just be scratching the surface of this topic!**

# What is a structure app?

— [ Introduced in FM+SGML 5.1 (1993) and FM 7.0 XML (2002)

— [ Tells FM how to interpret and render a structural model

— [ Use to edit (read and/or write) XML or SGML files

— [ Also, can edit “structured FM” (binary) files .. this is a bit different

# Editing structured FM files

- [ Source file is FM binary file

- [ “Normal” FM file with content wrapped in a tree-structured model with elements and attributes

- [ No import or export process, all formatting and model (EDD) are embedded within the file

- [ Can apply ad-hoc formatting or break the model (bad?)

# Editing XML/SGML files

— [ Source file is XML or SGML (text file)

— [ Editing requires a structure application designed to support the XML or SGML model

— [ On file open, content is opened in template as a “FM” file

— [ On file save, XML/SGML is written to disk

— [ Any ad-hoc formatting is lost on file save, warned about model errors (good?)

# Demo

- [ Show editing XML and structured FM files

- [ Include formatting and structural issues

# Structure app components

— [ Structure application definition

— [ DTD (Document Type Definition)

— [ EDD (Element Definition Document)

— [ Template

— [ Read/write rules

— [ XSLT stylesheets

— [ Import/export client

# Structure app definition

- [ Set of nodes in structapps.fm file (a structured FM file)

- Since FM11 there have been 2 of these (local/global)

- [ Defines the “name” of the application

- [ Lists files associated with the application

- [ Describes the basic properties of the application

- [ Sets the DOCTYPE(s) and Public ID(s)

# Demo

- [ Show difference between local/global structapp files
- [ Show how FM decides which app to apply when opening XML file

# DTD (Doc Type Definition)

— [ For editing XML/SGML files

— [ Provided by developer/architect of model

— [ Defines structural model (elements/attributes/hierarchy)

— [ Validates model on export to XML/SGML

— [ Referenced by the structure app definition

# EDD (Element Definition Doc)

— [ Structured FM file

— [ Defines structural model (elements/attributes/hierarchy)

— [ Model typically based on DTD

— [ Defines context rules (formatting applied based on context)

— [ Styling can be hard-coded or referenced from template

— [ EDD imported into template file

# Template

— [ “Regular” FM file

— [ Defines styles, objects, page properties

— [ EDD is imported into this file

— [ Referenced by the structure app definition

— [ Used as the “base” file when opening XML/SGML files

# Read/write rules

— [ Defines properties for elements and attributes when read/  
written to XML/SGML

— [ ASCII or FM file

— [ Referenced by the structure app definition

# XSLT stylesheets

- [ Performs structural modifications to XML on import and/or export

- [ Supports XSLT processing engines:

- SAXON (XSLT 2.0)

- XALAN (XSLT 1.0)

- [ Referenced by the structure app definition

# Import/export client

- [ Performs custom modifications to XML or SGML files on import and or export

- [ FDK client DLL

- [ FDK client is a C-language DLL, developed with the FrameMaker API

- [ Referenced by the structure app definition

# Workshop tasks

— [ Review structure app definition files

— [ Clone existing structure app

— [ Modify template

— [ Modify EDD

— [ Modify rules file

— [ Review advanced options (XSLT and import/export client)

# Resources

— [ Structure Application Developer's Guide

— [ Structure Application Developer's Reference

— [ Adobe forum - FrameMaker Structured

— [ Yahoo group - frame\_dev

— [ Scott Prentice <scott AT leximation.com> —  
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# Feedback



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