

Outside of a dog, a book is man's best  
friend. Inside of a dog it's too dark to read.  
—Groucho Marx

# PREFACE

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FOSI is the formatting language used by Arbortext Editor for the Edit window display and print/PDF output. Styler™ and XSL-FO stylesheets utilize FOSI but do not support all the formatting available with a native FOSI stylesheet.

Because it is so tightly integrated with the Arbortext product line, FOSI enables development of powerful Arbortext applications that run at top speed. The goal of *Essential FOSI* and the companion tutorials is to help you get the most out of Arbortext Editor.

## Audience

*Essential FOSI* is designed for anyone who:

- wants to know what FOSI can contribute to an Arbortext application
- needs to learn FOSI to make source edits in Styler™
- needs to maintain a FOSI developed by someone else
- is looking for a source of working FOSI code

- wants to learn how to develop a FOSI as quickly as possible while making the FOSI as easy as possible to maintain
- wants to refresh their knowledge of FOSI and learn all the latest tips and tricks

## Prerequisites

A working knowledge of structured markup, Arbortext Editor, and DTDs is a prerequisite for learning FOSI formatting. Programming experience, however, is not required. The most useful background is desktop publishing, typesetting, or other document preparation experience.

## What's in this book

*Essential FOSI* covers the following:

- FOSI reference information
- lots of tips and tricks
- how-to instructions
- advanced coding techniques
- a methodology for developing FOSI stylesheets
- guidelines for starting a new FOSI, including how-to instructions for coding common formatting requirements
- information on FOSI debugging
- FOSI-related error messages

The appendices contain the following:

- frequently asked questions related to FOSI
- supplementary information about formatting for paper
- glossary
- Arbortext's version of the OutSpec DTD with annotations
- Other resources available to FOSI developers

## What's not in this book

The FOSI standard, officially titled *MIL-PRF 28001C Appendix B*, is not replicated in *Essential FOSI*. The FOSI standard was written for software

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engineers developing support for FOSI and was never intended to be used as user documentation. PTC/Arbortext provides an annotated version at `Arbortext\Editor\tutorials\28001C\28001C.sgm`.

*Essential FOSI* draws on information in the standard and Arbortext Editor Help to convey the details of PTC/Arbortext's support for FOSI. *Essential FOSI* is designed for FOSI developers and anyone involved in putting together an Arbortext Editor application. FOSI is an integral part the Arbortext Editor software.

The focus of *Essential FOSI* is on the practical use of FOSI. The theory left to the FOSI standard. The goal here is to facilitate development of production FOSI stylesheets for Edit window display and print/PDF output.



*Essential FOSI* is a reference book; it does not contain tutorials and does not teach the use of Arbortext Editor's two powerful FOSI interfaces, the style panels and the tagged editor. For that, you need the author's **FOSI Quickstart Tutorials**, which are designed so you can learn FOSI as easily and quickly as possible. The tutorials teach important concepts while providing lots of useful how-to coding examples and teaching the use of the two FOSI development interfaces. After completing the tutorials, you will understand how FOSI works, have some familiarity with everything it can do in Arbortext Editor, and know how to make the most of the FOSI development interfaces so you can hit the ground running. In addition, with its tips and tricks, FOSIs, and test documents, the tutorials are an ongoing resource. Please visit the author's web site at [www.FOSIexpert.com/tutorials.html](http://www.FOSIexpert.com/tutorials.html) for more information on the **FOSI Quickstart Tutorials**.

**NOTE:** *Essential FOSI* does not document PTC/Arbortext's Change Pages Application (CPA) or any FOSI components used only by CPA.

## Conventions used in this book

The following conventions are used in *Essential FOSI*:

- The phrase SGML/XML is used because FOSI works with both.
- “Arbortext,” “formatter,” and “formatting engine” are used because it is not practical to distinguish Arbortext Editor, Print Composer, and Publishing Engine.

- When categories and characteristics are introduced, the OutSpec term is followed by the FOSI style panels interface terminology in parentheses. For example: `span (columns)`. Otherwise, OutSpec terminology is used.  
**NOTE:** One exception: *Essential FOSI* refers to “attribute rule” (the FOSI style panels terminology), which is more commonly used than “attribute specification” or “attspec.”
-  indicates formatting that is supported for Edit window display;  indicates formatting that applies to print/PDF output.
- In OutSpec DTD fragments, a single underscore indicates the formatting is supported for both Edit window display and print/PDF output. A double underscore means the formatting is supported only for print/PDF.
- Elements are shown with angle brackets. For example: `<note>`. Attributes shown separately are in italics. For example: *role*.
- Categories, characteristics, and attributes are shown in a monospaced font. For example: `algroup` and `refpoint`. Values entered by the user are also in a monospaced font. For example: `10pi+4.5pt`.
- FOSI terminology is shown in bold when it is introduced.
- Footnotes in this book follow a sequence of symbols, starting with a dagger (†). The asterisk (\*) is not used because it has meaning in DTDs and the FOSI language.

## About examples

Just as a good picture is worth a thousand words, so is a good example. *Essential FOSI* contains many examples to demonstrate FOSI’s power as well as provide code you can use and inspiration for code you can develop yourself. The examples were tested in version 5.3 M030 of Arbortext Editor.

Examples are generally structured as follows:

1. As graphic of the formatted output or of the Edit window display, is shown first.
2. When necessary, a DTD fragment is provided next. Otherwise, assume the markup and structure shown in the example are valid.
3. The relevant XML or SGML fragment is included next, unless the graphic shows the Edit window or the input is obvious.
4. Last but not least is the FOSI fragment. FOSI code that is the essence of the example is highlighted so it is easy to spot.

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**NOTE:** Smaller than normal page dimensions are often used in *Essential FOSI* to illustrate page-related formatting in a reasonable amount of space. Similarly, a larger than usual font size is often employed in sample output so the object of discussion is easy to see without magnification.

**NOTE:** To conserve space, end tags for FOSI code examples may be omitted when their existence can be inferred. For instance, in the following FOSI code, `</charlist>` and `</e-i-c>` are implied by ellipsis dots (...), which suggest that other categories may be coded in the `e-i-c`. In addition, FOSI code examples may assume the existence of supporting code. In the example below, the definition of the `inline` and `bold` charsubsets might not be included in the FOSI code fragment; their presence and meaning are assumed.

```
<e-i-c gi="emphasis">
<charlist inherit="1" charsubsetref="inline bold">
...
```

## Acknowledgments

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## Colophon

This book was authored using Arbortext Editor with the author's EZ interface and a DocBook-based custom DTD. It was formatted for print with a custom FOSI.

Cover photo: "Summer Heat," James Stewart, ©2009.