

Section 1. Tutorial introduction

Tutorial overview

The automated generation of code, when applied correctly, can be a powerful engineering technique. This tutorial provides a basic introduction to code generation concepts, and in particular introduces XSLT as a code generation tool.

The tutorial also discusses the limitations of XSLT when generating code, and demonstrates how to compensate for some of these issues using a flexible framework built with open source tools, such as Ant and Jalopy. This simple but powerful framework can be applied to the generation of many different types of code.

The examples in the tutorial illustrate how to apply this framework to the generation of both Java code and XSLT stylesheets. The latter section introduces a powerful technique called **meta-stylesheets** that is sure to prove useful to any XSLT author.

Who should take this tutorial?

This tutorial is designed for developers already familiar with XML, XSLT, and the Java language, and who are interested in combining these technologies to help automate development tasks and explore the potential benefits of code generation. The tutorial therefore assumes that you already understand how to write and apply XSLT stylesheets. The [Resources](#) on page 29 include pointers to an XSLT tutorial for those needing a refresher on the basic concepts.

The tutorial examples also refer to Ant, an open source build tool. However, as the tutorial covers both the installation of the Ant and some background on its basic concepts, no detailed prior knowledge is assumed. If you're interested in learning more about Ant, see the [Resources](#) on page 29 section.

Overall, the tutorial introduces the reader to the uses of XSLT as a code generation tool, providing useful tips, techniques, and advice.

While the majority of the examples discuss the generation of Java code, you can easily adapt the basic techniques to encompass other programming languages.
