User Guide

Hantsy Bai

User Guide

Hantsy Bai

Table of Contents

Chapter 1. Introduction

A brief introduction to the dbktools project

1.1. What is dbktools

DocBook is a standard of the OASIS standard organization, it targets technical publishing. It is easy to convert DocBook files to other format, such as HTML, PDF, even Microsoft Word.

But DocBook does not include a build system which is responsible of converting it into other format. If you plan to prepare the build environment from scratch, it will waste much of your time. Many commercial DocBook authorising tools include a build system, but most of them are too expensive. For most users, dbktools is a good option, it is not a WYSIWYG DocBook editor, but it provides a simple approach to fill this table.

The dbktools project include some useful scripts and template files. Take advantage of this tool, you can create and publish DocBook project quickly.

1.2. Why dbktools

If you have used DocBook to write documentation before, maybe you have used other DocBook publish tools. Such as:

- JBoss JDocbook Maven plugin is from JBoss community, it is widely used in JBoss open souce project.
- Docbkx Maven plugin is another maven plugin for DocBook publishing. It is similar to JBoss JDocbook Maven plugin.
- Apache Velocity Docbook Framework is a subprojct of Apache Velocity.
- Ant Docbook Styler, a publishing tool based on Apache Ant, but it is out of date. The dbktools project reuses some work of this project.
- CDBE is a basic docbook publishing tool from Chinese community, but it only supports Windows.

Compare to other docbook publishing tool, dbktools has some highlight features.

- *Native CJK support* The first purpose of the dbktools prject is CJK support. It includes font configuration templates of Apache FOP and RenderX XEP for PDF render.
- *Flexibility* You can select different PDF renderer to export PDF documentation. It now supports Apache FOP and RenderX XEP. In future, it will support XmlMind personal tool.
- *Friendly User Interface* This work is in progress. Currently, you need some configuration manually. In future, all the configuration progress is interactive. You only answer some question to accomplish the configuration.

Chapter 2. Installation

Install dbktools into your system

2.1. Install JDK

To use dbktools, you must have a Java environment. Please download the newest JDK from Sun Java SE website and install it into your system.

For installation details, please consult the Sun Java SE website or use google.

2.2. Install Apache Ant

Since dbktools is based on Apache Ant, you must install Apache Ant firstly.

Download it from the Apache Ant website. At the moment writing this documentation, the newest version of Apache Ant is 1.7.1. You will get a compressed file which filename extension is .zip or tar.gz.

Unzip it to your harddisk. In Windows system, you can utilize Winzip. Under Linux system, you can use **unzip** to uncompress it.

```
[hantsy@localhost ~]unzip apache-ant-1.7.1.zip
```

Add an environment variable ANT_HOME to your system and add the ANT_HOME/bin to system path. Under Linux, you add following code fragment to your bash profile.

```
export ANT_HOME=/opt/build/ant
export PATH=$PATH:$ANT_HOME/bin
```

Verify your settings.

```
[hantsy@localhost dbktools]$ ant -version
Apache Ant version 1.7.1 compiled on June 27 2008
```

2.3. Install dbktools

Download dbktools from Google Code. Unzip it to your local harddisk. You will see the following in the root folder.

```
.
|-- common❶
|   |-- build.xml❷
|   |-- commonbuild.xml❸
|   |-- default-config.properties❹
|   |-- docbook-xml-4.5❺
|   |-- docbook-xsl-1.74.0❻
```

```
|   |-- fop❼
|   |-- properties.xml❽
|   |-- saxon❾
|   |-- templates❿
|   `-- xep⓫
|-- userguide⓬
|   |-- build.properties
|   |-- build.xml
|   |-- resources
|   `-- src
`-- userguidezh⓭
|-- build.properties
|-- build.xml
|-- resources
`-- src
```

❶ The common resources of dbktools, include all scripts and templats.
❷ Ant build file to setup dbktools and create DocBook project.
❸ Ant build file to publish DocBook project, it is shared for all DocBook project.
❹ Common configuration properties file.
❺ The DocBook official dtd schema definition files.
❻ The DocBook official xslt style files.
❼ The Apache FOP files. The fop customized configuration file will be installed in to this folder.
❽ Common properties file for DocBook creation and publishing.
❾ Saxon jar files.
❿ Templates for configLocation and DocBook publishing.
⓫ RenderX XEP installation folder. This folder is empty by default. If you would like use RenderX XEP to render PDF. You must download and install RenderX XEP into this folder.
⓬ The User Guide DocBook source, this is a sample DocBook project of dbktools. This PDF is generated from the project.
⓭ A Chinese version of User Guide. It is out of date.

2.4. Configure dbktools

Open the `common/default-config.properties` file with your favorite text editor. According to your sytem environment, you can modify the default configuration. These options are mainly used in the setup progress.

```
# Specified the default location of the new docbook project generated.
default.project.location=${basedir}/..❶

# Default system truetype fonts path. For Chinese user, you can specify the location which
# include SimSun, SimKai, SimHei fonts. Under windows system, the default is
# C:/WINDOWS/FONTS, but under Linux, it is against the Linux distribution. For
# other language configuration, it need  contribution from the community.
default.fonts.dir=/usr/share/fonts/truetype/❷

# Enable fop config. Recommend keep this option default value is true.
pdf.renderer.fop.enabled=true❸

# Enable xep config. If you would like use RenderX XEP to render PDF, set this value "true"
# WARNING: XEP is none open source software. This tools does not shipped whit it. You must
# download it from http://www.renderx.com and install it into the xep folder under common.
pdf.renderer.xep.enabled=true❹
```

```
# Weather use XEP to render PDF. The default is fop, other options include xep.
# You can modify this attribute in the project properties file and switch to other pdf
# renderer.
default.pdf.renderer=fop❺
```

❶ The value is where you will place DocBook projects generated by this tool. The default is the root folder.

❷ The value is the directory stored the truetype fonts. You can use the system fonts directory.

Under windows system, the default is `C:/WINDOWS/FONTS`, but under Linux, it is against the Linux distribution. I put my favorite truetype fonts into `/usr/share/fonts/truetype/`.

For Chinese user, you can specify the location which include SimSun, SimKai, SimHei fonts. For other language configuration, it need contribution from the community.

❸ Weather enable Apache FOP configuration. If this value is false, the setup progress will skip configure Apache FOP. Recommend keep this value true.

❹ Weather enable RenderX XEP configuration. If this value is false, the setup progress will skip configure RenderX XEP. If you would like use RenderX XEP to render PDF later, set this value "true". This tools does not shipped whit RenderX XEP. You must download it from http://www.renderx.com manually and install it into the `xep` folder under `common`. If you would not like install RenderX XEP and have no plan to use RenderX XEP in future, comment out this line.

❺ This value is the default PDF renderer. The default is fop, other options include "xep". You can modify this attribute in the project properties file and switch to other PDF renderer. Either which PDF renderer you choose, you must enable it firstly, or this setup scripts will skip configuring it and you could not build your DocBook project successfully later.

Now, open a terminal, enter the `common` folder.You can run **ant setup** to begin setup progress. It will configure dbktools automatically. After some seconds, all are configured. If you want modify the configuration option later, modify the `common/default-config.properties`, run this command again.

2.5. Optional Installation

If you select RenderX XEP as default PDF renderer. RenderX XEP is commercial software. This tool does not shipped with it. You must install it manually.

2.5.1. Install RenderX XEP

I perferred RenderX XEP to Apache FOP as PDF renderer in my work, because RenderX XEP can generate more perfect PDF file.

Download RenderX XEP from RenderX website, http://www.renderx.com. RenderX provides a free personal edtion, you can apply a personal license. The only defect of RenderX XEP is that there is a link to the RenderX website in the bottom of the generated PDF. Install RenderX XEP into the `common/xep` folder.

Chapter 3. Usage

Create and publish DocBook project

Configuration is finished. It is time to create a DocBook project now.

3.1. Create a DocBook project

Currently, dbktools only provide basic DocBook project templates . Use the ant script, you can create a book or an article quickly.

Enter the `common` directory, run **ant help** to get the help infomation.

```
[hantsy@localhost userguide]ant help
Buildfile: build.xml

help:
  [echo]
  [echo]   #--------------------------------#
  [echo]   # Docbook build tools            #
  [echo]   #--------------------------------#
  [echo]  Usage: ant book ---create a new book.
  [echo]   ant article ---create a new article.
  [echo]   ant setup ---setup docbook build tools.
  [echo]
BUILD SUCCESSFUL
Total time: 0 seconds
```

Make sure you are entered in the `common` folder. Run **ant book** and input the book name. A DocBook project will be created in the location which you have specified in the `common/default-config.properties` file.

```
[hantsy@localhost common]$ ant book
Buildfile: build.xml

check.setup:

book:
     [echo]
     [echo]   #-----------------------------------#
     [echo]   # Create a new book from template. #
     [echo]   #-----------------------------------#
     [echo]
    [input] new book name[sample]? [sample]❶
firstbook
    [mkdir] Created dir: /home/hantsy/Projects/dbktools/firstbook
    [mkdir] Created dir: /home/hantsy/Projects/dbktools/firstbook/src
    [mkdir] Created dir: /home/hantsy/Projects/dbktools/firstbook/resources
     [copy] Copying 10 files to /home/hantsy/Projects/dbktools/firstbook/resources
     [copy] Copied 1 empty directory to 1 empty directory under /home/hantsy/Projects
     /dbktools/firstbook/resources
     [copy] Copying 1 file to /home/hantsy/Projects/dbktools/firstbook/src
     [copy] Copying 1 file to /home/hantsy/Projects/dbktools/firstbook

BUILD SUCCESSFUL
Total time: 13 seconds
```

❶ Enter the book name. The default is sample. This is a interactive progress.

> **Tip**
>
> You can append a parameter "**-Dname=firstbook**" to the command and skip this interactive step.

Switch to the project folder, you will see the following content.

```
.
|-- build.properties❶
|-- build.xml❷
|-- resources❸
`-- src❹
```

❶ The property file of this project.
❷ The ant build file of this project. It imports the `commonbuild.xml` in `common` folder.
❸ The resources folder of this project. You can place images and css files here.
❹ The DocBook source of this project.

Similar to the book project creation, this tool also provides a template for article creation. Just run **ant article** instead of the **ant book** in the `common` folder.

3.2. Compose your DocBook document

This tool does not ship any docbook editor. You can use your favorite XML editor to compose your DocBook document.

There are some commercial software for excellent XML support, including:

1. *Altova XMLSpy XML editor*, the website is http://www.altova.com. XMLSpy is one of the most powerful XML editors in the world. It has native WYSIWYG DocBook support.

2. *Stylus Studio*, the website is http://www.stylusstudio.com.

3. *oXygen XML editor*, the website is http://www.oxygenxml.com. This tool is written in Java, so you use it under Linux and Mac OS X.

Some XML tool companies provides free edtion for personal use.

1. *Editx*, the website is http://www.editx.com. Editx provide a free edtion for none commercial usage. Download from http://free.editix.com/download.html.

2. *XmlMind XML Editor standard*, the website is http://www.xmlmind.com/xmleditor. This tool provide WYSIWYG ability for DocBook editing.

Some open source tool has XML process capability.

1. *Eclipse*, the website is http://www.eclipse.org. You can register DocBook catalog in Eclipse, make Eclipse provide code completation for DocBook tags.

2. *NetBeans IDE*, the website is http://www.netbeans.org. There is a DocBook module in NetBeans trunk. But it is out of date.

3. *XML Copy Editor*, a XML editor under Gnome desktop.

3.3. Publish your DocBook project

Once you have accomplished your DocBook document, you can publish it at once. Open a terminal, enter the project folder, run **ant** command in terminal. It will generate HTML and PDF in the `dist` folder.

Chapter 4. Feedback

Open your mind to embrace open source

I need your feedback!

There are some approachs to participate in this project.

1. If you have any question or suggestion about this project, do not hesitate to concact me by email or instant messager. My email is `<hantsy@tom.com>`. Or go to my blog(http://hantsy.cublog.cn), and leave your messages in the guestbook.

2. Organize your thought and post it into the dbktools issue tracker. Maybe your dream becomes true in the next release.

3. Join the DocBook group(http://docbook.group.javaeye.com, in Chinese) on JavaEye. Share your DocBook experience to each other.