Publican 4.3
Users' Guide

Publishing books, articles, papers and multi-volume sets with DocBook XML

Don Domingo
Red Hat
Brian Forté
Red Hat
Joshua Oakes
Red Hat

Red Hat
Sven Dowdeit
Red Hat
Rebecca Newton
Red Hat
Fedora

Zac Dover
Norman Dunbar
Rüdiger Landmann
Red Hat
Joshua Wulf

Publican 4.3 Users' Guide

Publishing books, articles, papers and multi-volume sets with DocBook XML

Don Domingo
Red Hat Engineering Content Services
ddomingo@redhat.com

Zac Dover
Red Hat Engineering Content Services
zdover@redhat.com

Sven Dowdeit
Debian and Docker installation instructions

Norman Dunbar
OpenSUSE installation instructions

Brian Forté
Red Hat Engineering Content Services
bforte@redhat.com

Rüdiger Landmann
Red Hat Engineering Content Services
r.landmann@redhat.com

Rebecca Newton
Red Hat Engineering Content Services

Joshua Oakes
Red Hat Engineering Content Services

Joshua Wulf
Red Hat Engineering Content Services
jwulf@redhat.com

With contributions from

Jeff Fearn (Technical Editor)
jfearn@redhat.com
Extensive review, rough drafts, persistent annoyances.

Josef Hruška
Fedora Localization Project
Checking the Czech examples in Entities and translation

Legal Notice

Keywords

1. publican. 2. docbook. 3. publishing.

Abstract

This book will help you install Publican. It also provides instructions for using Publican to create and publish DocBook XML-based books, articles and book sets. This guide assumes that you are already familiar with DocBook XML.

Preface

1. Document Conventions

This manual uses several conventions to highlight certain words and phrases and draw attention to specific pieces of information.

1.1. Typographic Conventions

Four typographic conventions are used to call attention to specific words and phrases. These conventions, and the circumstances they apply to, are as follows.

`Mono-spaced Bold`

Used to highlight system input, including shell commands, file names and paths. Also used to highlight keys and key combinations. For example:

> To see the contents of the file `my_next_bestselling_novel` in your current working directory, enter the `cat my_next_bestselling_novel` command at the shell prompt and press **Enter** to execute the command.

The above includes a file name, a shell command and a key, all presented in mono-spaced bold and all distinguishable thanks to context.

Key combinations can be distinguished from an individual key by the plus sign that connects each part of a key combination. For example:

> Press **Enter** to execute the command.

> Press **Ctrl**+**Alt**+**F2** to switch to a virtual terminal.

The first example highlights a particular key to press. The second example highlights a key combination: a set of three keys pressed simultaneously.

If source code is discussed, class names, methods, functions, variable names and returned values mentioned within a paragraph will be presented as above, in **`mono-spaced bold`**. For example:

> File-related classes include **`filesystem`** for file systems, **`file`** for files, and **`dir`** for directories. Each class has its own associated set of permissions.

Proportional Bold

This denotes words or phrases encountered on a system, including application names; dialog-box text; labeled buttons; check-box and radio-button labels; menu titles and submenu titles. For example:

> Choose **System → Preferences → Mouse** from the main menu bar to launch **Mouse Preferences**. In the **Buttons** tab, select the **Left-handed mouse** check box and click **Close** to switch the primary mouse button from the left to the right (making the mouse suitable for use in the left hand).

> To insert a special character into a **gedit** file, choose **Applications → Accessories → Character Map** from the main menu bar. Next, choose

Search → Find… from the **Character Map** menu bar, type the name of the character in the **Search** field and click **Next**. The character you sought will be highlighted in the **Character Table**. Double-click this highlighted character to place it in the **Text to copy** field and then click the **Copy** button. Now switch back to your document and choose **Edit → Paste** from the **gedit** menu bar.

The above text includes application names; system-wide menu names and items; application-specific menu names; and buttons and text found within a GUI interface, all presented in proportional bold and all distinguishable by context.

Mono-spaced Bold Italic or ***Proportional Bold Italic***

Whether mono-spaced bold or proportional bold, the addition of italics indicates replaceable or variable text. Italics denotes text you do not input literally or displayed text that changes depending on circumstance. For example:

To connect to a remote machine using ssh, type **ssh *username*@*domain.name*** at a shell prompt. If the remote machine is **example.com** and your username on that machine is john, type **ssh john@example.com**.

The **mount -o remount *file-system*** command remounts the named file system. For example, to remount the **/home** file system, the command is **mount -o remount /home**.

To see the version of a currently installed package, use the **rpm -q *package*** command. It will return a result as follows: ***package-version-release***.

Note the words in bold italics above — username, domain.name, file-system, package, version and release. Each word is a placeholder, either for text you enter when issuing a command or for text displayed by the system.

Aside from standard usage for presenting the title of a work, italics denotes the first use of a new and important term. For example:

Publican is a *DocBook* publishing system.

1.2. Pull-quote Conventions

Terminal output and source code listings are set off visually from the surrounding text.

Output sent to a terminal is set in **mono-spaced roman** and presented thus:

```
books          Desktop    documentation  drafts  mss     photos    stuff
svn
books_tests  Desktop1  downloads          images  notes  scripts  svgs
```

Source-code listings are also set in **mono-spaced roman** but add syntax highlighting as follows:

```
package org.jboss.book.jca.ex1;

import javax.naming.InitialContext;
```

```
public class ExClient
{
   public static void main(String args[])
       throws Exception
   {
     InitialContext iniCtx = new InitialContext();
     Object          ref    = iniCtx.lookup("EchoBean");
     EchoHome        home   = (EchoHome) ref;
     Echo            echo   = home.create();

     System.out.println("Created Echo");

     System.out.println("Echo.echo('Hello') = " +
echo.echo("Hello"));
   }
}
```

1.3. Admonitions

Finally, we use three visual styles to draw attention to information that might otherwise be overlooked.

Note

Notes are tips, shortcuts or alternative approaches to the task at hand. Ignoring a note should have no negative consequences, but you might miss out on a trick that makes your life easier.

Tip

Tips are tips, shortcuts or alternative approaches to the task at hand. Ignoring a tip should have no negative consequences, but you might miss out on a trick that makes your life easier.

Important

Important boxes detail things that are easily missed: configuration changes that only apply to the current session, or services that need restarting before an update will apply. Ignoring a box labeled "Important" will not cause data loss but may cause irritation and frustration.

Caution

Warnings should not be ignored. Ignoring warnings will most likely cause data loss.

Warning

Warnings should not be ignored. Ignoring warnings will most likely cause data loss.

2. We Need Feedback!

If you find a typographical error in this manual, or if you have thought of a way to make this manual better, we would love to hear from you! Please submit a report in Bugzilla: https://bugzilla.redhat.com/enter_bug.cgi?product=Publican&component=Publican%20Users%20Guide&version=4.1.

If you have a suggestion for improving the documentation, try to be as specific as possible when describing it. If you have found an error, please include the section number and some of the surrounding text so we can find it easily.

Introduction

Publican \ \n \p is a tool for publishing material authored in DocBook XML. This guide explains how to create and build books and articles using **Publican**. It is not a general DocBook XML tutorial; refer to *DocBook: The Definitive Guide* by Norman Walsh and Leonard Muellner, available at http://www.docbook.org/tdg/en/html/docbook.html for more general help with DocBook XML.

Publican began life as an internal tool used by Red Hat's Documentation Group (now known as Engineering Content Services). On occasion, this legacy is visible.

Design.

Publican is a publication system, not just a DocBook processing tool. As well as ensuring your DocBook XML is valid, **Publican** works to ensure your XML is up to publishable standard.

The branding functionality allows you to create your own presentation rules and look, overriding many parts of the default style to meet your publishing needs. Choices executed in code, however, are not changeable.

Entities, for example, can be validly defined in any XML file. However, to ensure the DTD declaration is present, valid and standardized, **Publican** rewrites the declaration in every XML file before it builds a book or article. Consequently, all entities declared in all XML files are lost. **Publican**, therefore, requires you define entities in the *Doc_Name*.**ent** file (refer to Section 1.6, "*Doc_Name*.ent").

As publishing workflows grow, unrestrained entity definition leads to entity duplication and other practices that cause maintenance difficulties. Consolidating entity definitions in a single, predictable place alleviates these maintenance issues and helps the automation of the build process stay robust.

Entities also present an essentially insurmountable obstacle to quality translation (refer to Section 1.6.1, "Entities and translation"). Consequently, while we are not reducing the *Doc_Name*.**ent** file's functionality, we are no longer considering requests to add functionality or features associated with entity use.

1. This section is for testing the output and doesn't ship in the production docs

1.1. Testing BZ #1092351 Code Switcher

Perl

```
#!/usr/bin/perl
use strict;
use warnings;

print "Hello, World!\n";
```

C++

```
#include <iostream>
```

```
int main()
{
   std::cout << "Hello World!"; &lies;
}
```

1.2. Testing BZ #1088051 Code Popper

```
$ apt-get search libxslt
gambas3-gb-xml-xslt - Gambas XSLT component
libidzebra-2.0-mod-alvis - IDZebra filter alvis (XSLT filter for
XML)
libidzebra-2.0-mod-dom - IDZebra filter 'dom' (XML DOM internal
```

1.3. Testing BZ #1112899 Callouts and BZ #1101050 Entities in CDATA

Test a programlisting with a calloutlist

Example 1. "Hello world!" in C++

```
#include <qpid/messaging/Connection.h>
#include <qpid/messaging/Message.h>
#include <qpid/messaging/Receiver.h>
#include <qpid/messaging/Sender.h>
#include <qpid/messaging/Session.h> &BZ1101050;

#include <iostream>

using namespace qpid::messaging;

int main(int argc, char** argv) {
    std::string broker = argc > 1 ? argv[1] : "localhost:5672";
    std::string address = argc > 2 ? argv[2] : "amq.topic";
    Connection connection(broker);
    try {
        connection.open();
        Session session = connection.createSession();

        Receiver receiver = session.createReceiver(address);
        Sender sender = session.createSender(address);

        sender.send(Message("Hello world!"));

        Message message = receiver.fetch(Duration::SECOND * 1);
        std::cout << message.getContent() << std::endl;
        session.acknowledge();

        connection.close();
        return 0;
    } catch(const std::exception& error) {
```

```
        std::cerr << error.what() << std::endl;
        connection.close();
        return 1;
    }
}
```

1

Establishes the connection with the messaging broker.

2

Creates a session object, which maintains the state of all interactions with the messaging broker, and manages senders and receivers.

3

Creates a receiver that reads from the given address.

4

Creates a sender that sends to the given address.

5

Reads the next message. The duration is optional, if omitted, will wait indefinitely for the next message.

6

Acknowledges messages that have been read. To guarantee delivery, a message remains on the messaging broker until it is acknowledged by a client. session.acknowledge() acknowledges all unacknowledged messages for the given session—this allows acknowledgements to be batched, which is more efficient than acknowledging messages individually.

7

Closes the connection, all sessions managed by the connection, and all senders and receivers managed by each session.

And now we test a programlistingco with an areaspec

```
<list-index
    column="column_name"                                        1
    base="0|1|..."/>                           2
```

1

column_name (required): the name of the column holding the collection index values.

2

base (optional - defaults to **0**): the value of the index column that corresponds to the first element of the list or array.

1.4. Testing BZ #752021 Cross-Browser embed external video

https://clips.vorwaerts-gmbh.de/VfE.webm

https://player.vimeo.com/video/30704252?
title=0[1844952446]byline=0[1844952446]portrait=0

https://youtube.com/embed/B-Wd-Q3F8KM

1.5. Testing BZ #1110611 A line break is automatically inserted after cdata in code.

Is there a newline inserted after this **CDATA**?

1.6. Testing BZ #1117561 CDATA tags

=, >, >=, <, <=, <>

!=

<>

1.7. Testing BZ #1135827 Single line comment being highlighted in a callout.

```
package com.sample;

import org.kie.api.runtime.process.WorkItem;
import org.kie.api.runtime.process.WorkItemHandler;
import org.kie.api.runtime.process.WorkItemManager;

public class NotificationWorkItemHandler implements WorkItemHandler {

  public void executeWorkItem(WorkItem workItem, WorkItemManager
manager) {
     String from = (String) workItem.getParameter("From");
     String to = (String) workItem.getParameter("To");
     String message = (String) workItem.getParameter("Message");
     String priority = (String) workItem.getParameter("Priority");

     // send email
     EmailService service =
ServiceRegistry.getInstance().getEmailService();
     service.sendEmail(from, to, "Notification", message);
```
1
```

     // notify manager that work item has been completed
     manager.completeWorkItem(workItem.getId(), null);
  }
```
2

```
   public void abortWorkItem(WorkItem workItem, WorkItemManager
manager) {
   // Do nothing, notifications cannot be aborted
   }

}
```

1

The **ServiceRegistry** class is an example class implementing the task business logic.

2

The **completeWorkItem()** call completes the work item execution.

1.8. Testing BZ #1168765 programlisting no longer support language attribute.

```
<?xml version="1.0" encoding="UTF-8"?><test></test>
```

Chapter 1. Installing Publican

1. Linux operating systems

> **Important — Availability in repositories**
>
> The procedures documented in this section assume that **Publican** and its various dependencies are available in repositories to which your system has access.

1.1. Fedora & Red Hat Enterprise Linux 6

1. Open a terminal.

2. Change to the root user: **su -**

3. Run the following command to install the publican package and the publican-doc documentation package:

   ```
   $ yum install publican\*
   ```

Several brand packages are available for use with **Publican**. Run the following command as the root user to install packages for building branded books:

```
$  yum install publican-brand
```

Replace *brand* with, for example, **redhat**, **fedora**, **jboss**, **ovirt**, or **gimp**. Refer to Chapter 5, *Branding* for more information on branding.

1.2. Ubuntu

1. Open a terminal.

2. Run the following command to install the publican package:

   ```
   $ sudo apt-get install publican
   ```

1.3. Debian

This procedure will install the **publican** version that is in your default Debian repository. It will also install a large number of packages that **publican** depends on, like Java, XML and image processing libraries and many ancillary Perl modules.

1. Open a terminal.

2. Change to the root user: **su -**

3. Run the following command to install the publican package:

   ```
   $ apt-get install publican
   ```

4. Run the following command to determine what version of publican is installed:

```
$ publican -v
version=2.8
```

> **Important — Installing more recent packages using Apt-Pinning**
>
> If you need a more recent release of publican than installed by the procedure above, you can query if there other versions available: http://packages.debian.org/publican.
>
> To date, there has not been any backport (http://backports.debian.org/Instructions/) available for **publican**, so we need to use Apt Pinning https://wiki.debian.org/AptPreferences
>
> Alternatively, you could run Debian testing or unstable in a virtual machine, chroot or linux container.

Assuming there is a more recent version of **publican** available in the testing repository, and that you are running the current stable, then you can upgrade by:

1. Open a terminal.

2. Change to the root user: **su -**

3. Open your **/etc/apt/sources.list** file in a text editor. For example, to edit the file in **gedit** run:

```
$ gedit /etc/apt/sources.list
```

4. Add the following line to the end of the file:

```
#### testing  #########
deb http://ftp.us.debian.org/debian testing main contrib non-
free
```

5. Save the file and close the text editor.

6. Open (or create) your **/etc/apt/preferences** file in a text editor. For example, to edit the file in **gedit** run:

```
$ gedit /etc/apt/preferences
```

7. Add the following line to the end of the file:

```
Package: *
Pin: release a=stable
Pin-Priority: 900

Package: *
Pin: release a=testing
Pin-Priority: 400
```

```
Package: *
Pin: release o=Debian
Pin-Priority: -10
```

8. Save the file and close the text editor.

9. Run the following command to update the list of packages available to your computer:

```
$ apt-get update
```

10. Run the following command to try to install the testing version of publican package, and any updated dependancies:

```
$ apt-get -t testing install publican
```

Because Apt Pinning mixes 2 different debian streams in an un-tested way, incompatibilities may happen. For example, you may get a warning like:

```
$ publican
Warning: program compiled against libxml 209 using older 208
Warning: XML::LibXML compiled against libxml2 20901, but runtime
libxml2 is older 20800
Warning: program compiled against libxml 209 using older 208
Warning: XML::LibXSLT compiled against libxslt 10128, but runtime
libxslt is older 10126
Can't open publican: No such file or directory at /usr/bin/publican
line 430.
```

Which indicates that you might need to upgrade libxml2 and libxslt to the testing repository version too. This can be done by searching to find the likely library:

```
$ apt-get search libxslt
gambas3-gb-xml-xslt - Gambas XSLT component
libidzebra-2.0-mod-alvis - IDZebra filter alvis (XSLT filter
for XML)
libidzebra-2.0-mod-dom - IDZebra filter 'dom' (XML DOM
```

(and the same again for libxml2)

2. And then upgrading those packages to testing.

```
$ apt-get -t testing upgrade libxml2 libxslt1.1
```

1.4. OpenSuse 12

Publican has not been usable on OpenSuse up until release 12.1. Certain dependencies were missing and could not be found in any known OpenSuse repository. This is not the case with OpenSuse 12.1 as all dependencies can now be found and installed.

The following instructions describe installing **Publican** from source because, as yet, there is no **Publican** RPM for OpenSuse 12.1. The version of **Publican** is 2.9 taken directly from the source repository - previous versions have not been tested but may work.

At the time of writing, Publican 2.8 was the release version and work on 2.9 was still ongoing. For this reason the following instructions are subject to change.

The OpenSuse install was a default one with the following software categories added at install time:

▶ Technical Writing - for the Docbook tools etc.

▶ Perl Development

▶ Web and LAMP Server

The system used had KDE installed which shouldn't make a difference. The following KDE specific categories were also installed:

▶ KDE Development

▶ Desktop Effects

Finally, the entire Games category was removed.

After OpenSuse had completed installing, and all current updates had been applied, the following steps were followed to install **Publican**.

1. Open a terminal session.

2. Install the dependencies that are available from various online repositories - many of these are not present in the installation DVD repository.

   ```
   $ sudo zypper install perl-Config-Simple perl-DateTime \ perl-
   DateTime-Format-DateParse perl-DBD-SQLite perl-DBI \ perl-
   File-Find-Rule perl-File-Which perl-HTML-Format \ perl-
   Locale-MakeText-Gettext perl-Template-Toolkit \ perl-Test-Deep
   perl-Test-Pod perl-XML-LibXSLT \ perl-YAML liberation-fonts
   ```

   > **Note**
   >
   > **Liberation-fonts** is most likely already installed, but it is required. **Zypper** will not reinstall it if it is already present.

3. Use **cpan** to install the remaining dependencies which cannot be installed by **zypper**:

   ```
   $ sudo sh cpan File::pushd File::Copy::Recursive Locale::PO pp
   \ Syntax::Highlight::Engine::Kate XML::TreeBuilder exit
   ```

4. Download the source code:

   ```
   $ cd ~ mkdir -p SourceCode/publican cd SourceCode/publican
   svn checkout
   http://svn.fedorahosted.org/svn/publican/branches/publican-2x
   ./
   ```

5. Build the **Publican** build script:

```
$ perl Build.PL
```

If all the dependencies are installed, you should see the following:

```
WARNING: the following files are missing in your kit:
 META.yml
 Please inform the author.

Created MYMETA.yml and MYMETA.json
Creating new 'Build' script for 'Publican' version '2.9'
```

If not, then use **cpan** (as root) to install the missing modules and run the build again. Replace any forward slashes '/' by a double colon '::' and make sure you use exactly the same letter case, for example: If **File/pushd.pm** is reported as missing, you would use this to install it:

```
$ sudo sh cpan File::pushd exit
```

Assuming all went well, the **Build.PL** script will have created a new script named **Build** which we will use to create, test and install **Publican** 2.9.

```
$ ./Build
```

There will be lots of text scrolling up the screen for a few minutes, you should eventually see the following:

```
DEBUG: Publican::Builder: end of build
```

6. Test the build:

```
$ ./Build test
```

Again, lots of scrolling text at the end of which you may see the following:

```
Test Summary Report
-------------------
t/910.publican.Users_Guide.t (Wstat: 256 Tests: 5 Failed: 1)
 Failed test: 5
 Non-zero exit status: 1
t/pod-coverage.t (Wstat: 256 Tests: 9 Failed: 1)
 Failed test: 7
 Non-zero exit status: 1
Files=10, Tests=68, 420 wallclock secs ( 0.31 usr 0.17 sys +
246.87 cusr 18.73 csys = 266.08 CPU)
Result: FAIL
Failed 2/10 test programs. 2/68 subtests failed.
```

Don't worry. This is because of a missing **wkhtmltopdf** utility which is undergoing tests to be added to **Publican** in the future to replace Apache **FOP** as the pdf generation tool of choice. If **Publican** finds **wkhtmltopdf** it will use it, otherwise it uses **FOP**.

Unfortunately, at the time of writing, because OpenSuse names one of the dependencies of **wkhtmltopdf** differently (**ghostscript-fonts-std** as opposed to **ghostscript-fonts**) **wkhtmltopdf** will not run even if force installed with no dependency checks.

7. Install **wkhtmltopdf**.

   This step is optional. At the time of writing **wkhtmltopdf** did not work on OpenSuse 12.1 However, as the problems which prevent it working correctly from **Publican** may have been resolved, the following instructions give details on installing **wkhtmltopdf**.

   > **Note**
   >
   > If you intend to create indices in your generated pdf documents, you are advised to use **Apache FOP** rather than **wkhtmltopdf**. With **FOP** you get actual page numbers which is better in a printed document.

   ```
   $ JFEARN=http://jfearn.fedorapeople.org/wkhtmltopdf/f15
   MYSYSTEM=i686 ## For 64bit system use MYSYSTEM=x86_64 instead.
   wget $JFEARN/$MYSYSTEM/wkhtmltopdf-qt-4.7.1-
   1.git20110804.fc15.i686.rpm wget
   $JFEARN/$MYSYSTEM/wkhtmltopdf-0.10.0_rc2-1.fc15.i686.rpm
   ```

   > **Note**
   >
   > If you use a 64 bit system, make sure to set **MYSYSTEM** appropriately.

   Once downloaded, install both rpms as follows:

   ```
   $ sudo sh rpm -ivh wkhtmltopdf-qt* rpm -ivh --nodeps
   wkhtmltopdf-0* exit
   ```

   You have to use the option to ignore dependencies on the latter rpm due to the **ghostscript-fonts** problem described above.

8. Install **Publican**.

   The final stage is to install Publican, even though the testing stage had a couple of sub-tests which failed.

   ```
   $ sudo sh ./Build test exit
   ```

   The following steps are optional but it's a good idea to test that everything is working before you spend time on your own documents.

9. Test the installed **Publican** build:

   ```
   $ publican create --type=book --product=testing --
   version=1.2.3 --name=TestPublican
      Processing file en-US/Author_Group.xml -> en-
   US/Author_Group.xml
      Processing file en-US/Book_Info.xml -> en-US/Book_Info.xml
   ```

```
   Processing file en-US/Chapter.xml -> en-US/Chapter.xml
   Processing file en-US/Preface.xml -> en-US/Preface.xml
   Processing file en-US/Revision_History.xml -> en-
US/Revision_History.xml
   Processing file en-US/TestPublican.xml -> en-
US/TestPublican.xml

$ cd TestPublican/ publican build --lang=all --
formats=html,html-single,html-desktop,txt,pdf,epub
```

> **Note**
>
> At the time of writing, creating epubs with **Publican** 2.9 on OpenSuse gave the
> following error:
>
> ```
> runtime error: file /usr/share/publican/xsl/epub.xsl
> element choose
> Variable 'epub.embedded.fonts' has not been declared.
>  at /usr/lib/perl5/site_perl/5.14.2/Publican/Builder.pm
> line 915
> ```
>
> No epub file was created. The individual working files were however, and can be
> built into an epub book using **Sigil**, if desired.

Using the **Dolphin** file manager, you can browse to
SourceCode/TestPublican/tmp/en-US/ and view the various output formats
that you find there.

1.5. Docker container

> **Note**
>
> This installation procedure assumes you have already installed a working docker (see
> http://docker.io) environment.

Docker is a lightweight Jail (currently using LXC) that allows you to install and run
publican without installing your main Linux installation with all its dependencies.

1. Open a terminal.

2. Download and install the **svendowideit/publican** container from
   https://index.docker.io/u/svendowideit/publican/:

   ```
   $ docker pull svendowideit/publican
   ```

   This will take some time, as it downloads a fedora based container, and then the
   dependencies needed for publican

3. Add a publican bash alias to simplify your usage:

   ```
   $ echo 'alias publican="docker run -t -i -v $(pwd):/mnt
   svendowideit/publican"' >> ~/.bashrc
   ```

This alias assumes that you are running **publican** in the documentation root directory (the one with the publican.cfg file in it.

4. now you can use **publican** as per the documentation:

```
$ publican --version
version=3.2.1
```

1.6. Running publican from a GIT checkout

It is possible to run publican from a **GIT** checkout, without installing it, if the dependencies are installed.

1. To checkout the source from GIT open a terminal.

2. Run the following commands to checkout the publican source from GIT:

```
$ cd PATH TO PLACE SOURCE
$ git clone git://git.fedorahosted.org/publican.git publican
```

3. To run publican from this checkout run the following commands:

```
$ PUBLICAN_PATH="PATH TO PLACE SOURCE/publican"
$ perl -CDAS -I $PUBLICAN_PATH/lib
$PUBLICAN_PATH/bin/publican build  --brand_dir
$PUBLICAN_PATH/datadir/Common_Content/common --formats html
```

2. Windows operating systems

1. Download the Publican installer from https://fedorahosted.org/releases/p/u/publican/.

2. Browse to the folder to which you downloaded **Publican-Installer-*version*.exe**.

3. Double-click the **Publican-Installer-*version*.exe** file.

4. The installer presents you with a series of license agreements. All of the files that constitute a **Publican** installation are available under a free license. However, because different licenses are more suitable for certain parts of **Publican** than others, the **Publican** files are not all available under the same free license. Each license grants you a different set of rights and responsibilities when you copy or modify the files in your **Publican** installation. We chose this combination of licenses to allow you to use **Publican** as freely as possible and to allow you to choose whatever license you prefer for the documents that you publish with **Publican**.

   Read the terms of the various license agreements. If you agree to their terms, click **I Agree** on each of them, otherwise, click **Cancel**.

5. The installer offers to install several components: **Publican** itself (labeled **Main** in the installer window), a number of *brands* (including **RedHat**, **JBoss**, and **fedora**), and two DocBook components (the DocBook *Data Type Definition* (DTD) and DocBook *Extensible Stylesheet Language* (XSL) stylesheets). The three brands are grouped under the collapsible heading **Brands** and the DocBook components are

grouped under the collapsible heading **DocBook** in the installer window. Refer to Chapter 5, *Branding* for an explanation of brands in **Publican**. **Publican** uses the DTD and the XSL stylesheets to render XML documents in other presentation formats (such as HTML and PDF). If you do not install these components, **Publican** must download this data from the Internet every time it processes a document, which creates lengthy delays.

All components are selected by default. Click the checkboxes to deselect any components that you do *not* require and click **Next** to continue.

6. By default, the installer software creates a folder named **Publican** within the *%ProgramFiles%* folder of your computer — typically **C:\Program Files\Publican**. You can manually edit the path displayed in the **Destination Folder** box to select a different folder.

7. When you are satisfied with the destination folder, click **Install**.

   The installer displays a progress bar as it installs **Publican**. To see more detailed information about the progress of the installation, click **Show details**.

8. When the process finishes, the installer notifies you with the message **Completed**.

   Click **Close** to close the installer.

3. OSX Lion

1. Install **Xcode** from Mac App store.

   > **Note**
   >
   > **Xcode** is about 4GB. Be prepared to wait. It has things you need, though.

2. Install **Macports** from http://guide.macports.org/chunked/installing.macports.html. Everything you install with it goes into **/opt/local**, away from your normal OS files.

3. Open a terminal.

4. Install dependencies for publican, which are available as ports:

   ```
   $sudo port install docbook-xml docbook-xsl docbook-sgml-4.2
   perl5 bash-completion p5-file-pushd p5-config-simple p5-file-
   find-rule p5-file-slurp p5-class-trigger p5-time-hires p5-
   list-moreutils p5-ipc-run3 p5-class-accessor p5-test-perl-
   critic p5-xml-libxslt p5-locale-gettext p5-image-size p5-file-
   copy-recursive p5-datetime p5-archive-zip p5-timedate p5-
   html-format p5-dbd-sqlite p5-xml-simple p5-devel-cover p5-
   test-pod p5-test-pod-coverage p5-template-toolkit
   ```

5. Install CPAN modules for dependencies which can't be satisfied with ports. Note: this step will generate lots of messages, including warnings. Don't worry about them.

```
$sudo cpanLocale::Maketext::Gettext Locale::PO
DateTime::Format::DateParse Syntax::Highlight::Engine::Kate
XML::TreeBuilder File::Inplace String::Similarity
HTML::FormatText::WithLinks::AndTables
```

6. Install FOP if you want PDFs to work:

```
$ sudo port install fop
```

```
$ echo "FOP_OPTS='-Xms50m -Xmx700m'" > ~/.foprc
```

7. Check out Publican Main branch. This command should be run from your user home directory, for instance **/Users/yourusername**

```
$ git clone git://git.fedorahosted.org/publican.git
```

8. Change directories:

```
$ cd publican/publican
```

9. This directory should contain a file named **Build.pl**. Verify that you are in the correct directory, then run the following command. Ignore all the messages you get.

```
$ perl ./Build.PL
```

```
$ ./Build
```

10. Run the following command to install **Publican** and put all of its bits into **/opt/local**:

```
$ sudo ./Build install
```

Procedure 1.1. Create and build a book

1. ```
$ publican create --name=testbook
```

2. ```
$ cd testbook
```

3. ```
$ publican build --formats=html --langs=en-US
```

4. Open the **tmp/en-US/html/index.html** file in a browser to prove that it built correctly.

**Procedure 1.2. Install a brand**

1. Fix the permissions of the Commons Brand. You have to do this only once. This is a bug that will be addressed eventually.

```
$ find /opt/local/share/publican -type f |xargs sudo chmod 644
```

2. Either check out the SVN for your brand, or get a pre-built brand from a friend.

a. The SVN location for the brands supplied by Red Hat is
   http://svn.fedorahosted.org/svn/publican

b. If you use a pre-built brand, extract it as necessary.

3. If you got the brand from SVN, build it.

```
$ cd publican/publican-jboss
```

```
$ publican build --formats=xml --langs=all --publish
```

4. Install the brand.

```
$ sudo publican install_brand --
path=/opt/local/share/publican/Common_Content
```

You can now use the brand in your books by editing your book's **publican.cfg**
file or specifying the **--brand** option when creating your book.

Chapter 2. Publican defaults

Users can set their own default values for **Publican** in **~/.publican.cfg**. Currently, **Publican** supports the following values:

» firstname

» surname

» email

» formats

» lang

» langs

> **Note**
>
> This file is completely different to **publican.cfg** that is used to build a book. It does not accept the same parameters.

1. Publican default examples

Users can set *formats*, *lang*, and *langs* to their standard build parameters.

Example 2.1. Setting formats and lang

```
$ echo 'formats: "html,html-single,pdf,txt"' >> ~/.publican.cfg
$ echo 'langs: "en-US"' >> ~/.publican.cfg
$ publican build
Setting up en-US
[...]
 Finished txt
```

Publican 3.0 allows you to add a revision history entry from the command line. You can set your user details in **~/.publican.cfg**.

Example 2.2. Setting user details

```
$ echo 'firstname: "Dude"' >> ~/.publican.cfg
$ echo 'surname: "McPants"' >> ~/.publican.cfg
$ echo 'email: "dude.mcpants@awesome.com"' >> ~/.publican.cfg
$ publican add_revision --member "Updated examples in chapter 2." \
--member "Removed obsolete example in sect 4.1"
```

Chapter 3. Publican commands

Publican is a command-line tool. To use **Publican** on a computer with a Linux operating system, you must either start a terminal emulator program (such as **GNOME Terminal** or **Konsole**) or switch to a virtual console. To use **Publican** on a computer with a Windows operating system, run the **cmd** command from the **Start menu** to open a command prompt.

Publican commands take one of the following formats:

$ publican *command_option*

> The *command_option* is any of several options for the **$ publican** command itself. For a complete list of actions see Section 2, "Command actions"

$ publican *action action_options*

> The *action* is an action for **Publican** to perform, such as creating the XML files for a new document or building a HTML document from a document's XML files. The *action_options* apply to the *action*, such as specifying the language of a document. For a complete list of actions see Section 2, "Command actions"

$ publican *command_option action action_options*

> Some *command_options* affect the output of *actions*, for example, whether **Publican** should use ANSI colors in its output. For a complete list of actions and options see Section 2, "Command actions"

Chapter 4. Creating a document

This chapter describes creating books and articles: the main configuration files, example document files, and how to build a document.

Use the **$ publican create** command to create a new document, including all the necessary files for the document.

The **$ publican create** command accepts several options, detailed in this chapter. When an option can accept a value, separate the option from the value with a space or an equals sign; for example, **publican create --name New_Book** or **publican create -- name=New_Book**.

--help

> print a list of all **$ publican create** command options.

--name *Doc_Name*

> set *Doc_Name* as the name of the book or article. This variable must not contain any spaces. For example, the command **$ create_book --name Test_Book** creates a book named **Test_Book** with all the necessary files to build the book, and sets the *BOOKID* in the **Test_Book.ent** file.

--lang *Language_Code*

> set *Language_Code* as the language code of the language in which the book or article will be authored. If you do not specify a language code, **Publican** defaults to **en-US** (American English). The **--lang** option sets the *xml_lang* in the **publican.cfg** file and creates a directory with this name in the document directory. When initially created, this directory contains some boilerplate XML files. Refer to Section 1.1, "The publican.cfg file" for more information on **publican.cfg** parameters and Appendix F, *Language codes* for more detail on language codes.

--version *version*

> set *version* as the version number of the product that the book describes. For example, for Red Hat Enterprise Linux 5.1 you would use **5.1**. The default version is **0.1**. The **--version** option sets the **<productnumber>** tag in the **Book_Info.xml** or **Article_Info.xml** file. For more information refer to Section 1.2, "Book_Info.xml".

--edition *edition*

> set *edition* as the edition number of the book. This number indicates to users when a new edition of the book is released. The initial *general availability* (GA) release of the book should be edition **1.0**. The default value is **0**. The **--edition** option sets the **<edition>** tag in the **Book_Info.xml** or **Article_Info.xml** file. For more information refer to Section 1.2, "Book_Info.xml".

--product *Product_Name*

> set *Product_Name* as the name of the product that the book describes. This variable must not contain any spaces. For example, set this to **Fedora** for core Fedora documentation, and the name of the product for other products, for example, **Fedora_Directory_Server**. The default value is **Documentation**. The **-- product** option sets the **<product name>** tag in the **Book_Info.xml** file or **Article_Info.xml** file and the *PRODUCT* entity in the *Doc_Name*.**ent** file.

--type Article --name *Article_Name*

> create an article instead of a book. Replace *Article_Name* with the article name. This variable must not contain any spaces. The **--type** option sets the *type* in the **publican.cfg** file. Refer to Section 1.1, "The publican.cfg file" for more information on **publican.cfg** parameters.

--type Set --name *Set_Name*

> create a set of documents instead of a book. Replace *Set_Name* with the set name. This variable must not contain any spaces. The **--type** option sets the *type* in the **publican.cfg** file. Refer to Section 1.1, "The publican.cfg file" for more information on **publican.cfg** parameters and to Chapter 6, *Using sets* for details on using sets.

--brand *brand*

> set *brand* as the *brand* to use to style the output of this document, for example, **RedHat**, **fedora**, **JBoss**, **oVirt**, or **GIMP**. The default value is **common**, a default brand shipped with **Publican**. The **--brand** option sets the *brand* parameter in the **publican.cfg** file. Refer to Section 1.1, "The publican.cfg file" for more information on **publican.cfg** parameters. This option requires the appropriate **Publican** brand package to be installed. For example, to build Red Hat branded books, you must install the publican-redhat package. Refer to Section 1, "Installing a brand" for instructions on installing brand packages for **Publican**. If you do not specify a brand, **Publican** uses its built-in, default brand. Refer to Chapter 5, *Branding* for more information.

Before running the **$ publican create** command, use the **$ cd** command to change into the directory where you want the book to be created. For example, to create a book named **Test_Book** in the **my_books/** directory, run the following commands:

```
$ cd my_books/
$ publican create --name Test_Book
```

To see the results of this command on a computer with a Linux operating system, run the following:

```
$ ls
```

The output should be similar to the following:

```
Test_Book/
```

To see the contents of the new **Test_Book/** directory on a computer with a Linux operating system, run the following:

```
$ cd Test_Book/
$ ls
```

The output should be similar to the following:

```
en-US/ publican.cfg
```

1. Files in the book directory

If you run the command **$ publican create --name Test_Book --lang en-US**, **Publican** creates a directory structure and required files, similar to the following:

- **publican.cfg**

- **en-US** (directory)

  - **Test_Book.xml**

  - **Test_Book.ent**

  - **Revision_History.xml**

  - **Preface.xml**

  - **Chapter.xml**

  - **Book_Info.xml**

  - **Author_Group.xml**

  - **images** (directory)

    - **icon.svg**

1.1. The publican.cfg file

> **Note — Customizing output**
>
> If you maintain multiple versions of a document, you can create a configuration file for each version. When building or packaging the document, you can use the **--config** to specify a configuration file other than the **publican.cfg** file and therefore a different set of parameters to use in a particular build. For example:
>
> ```
> $ publican build --formats html,pdf --langs en-US,de-DE,hu-HU --
> config community.cfg
> ```

The **publican.cfg** file configures build options, and is located in the root of the book directory. The following is an example **publican.cfg** file, with a description of **publican.cfg** parameters following afterwards:

```
# Config::Simple 4.59
# Wed Jul 18 13:00:40 2012

xml_lang: "en-US"
type: Book
brand: common
```

Default parameters

xml_lang

specifies the language of the source XML files, for example, **en-US**, as set by the **--lang** option for **$ publican create**.

type

>specifies the type of document — a DocBook **<article>**, DocBook **<book>**, or DocBook **<set>**, as set by the **--type** option for **$ publican create**.

brand

>sets the *brand* of the document, for example, **RedHat**, **fedora**, **JBoss**, **oVirt** or **GIMP** , as set by the **--brand** option for **$ publican create**. If you do not specify a brand, **Publican** uses its default brand. Refer to Chapter 5, *Branding* for more information.

Advanced parameters *Delete me and reference appendix*

arch

>filters output by computer *architecture*. For example, if you set **arch: x86_64** in the **publican.cfg** file, **Publican** will only include XML elements tagged with the equivalent attribute, such as **<para arch="x86_64">**.

>> **Use with caution**
>>
>> As with conditional tagging more generally, **arch** can cause great difficulties when translating documents. Refer to Section 9.1, "Conditional tagging and translation" for an explanation of the issues.

>> **arch set for root nodes**
>>
>> If the root node of an XML file is excluded by the *arch* attribute, your document will not build, because empty files are not valid XML. For example, if **Installation_and_configuration-PPC.xml** contains a single chapter:
>>
>> ```
>> <?xml version='1.0' encoding='utf-8' ?>
>> <!DOCTYPE chapter PUBLIC "-//OASIS//DTD DocBook XML V4.5//EN"
>> "http://www.oasis-open.org/docbook/xml/4.5/docbookx.dtd" [
>> ]>
>> <chapter id="chap-Installation_and_configuration_on_PowerPC"
>> arch="PowerPC">
>> <title>Installation and configuration on PowerPC</title>
>>
>> [text of chapter]
>>
>> </chapter>
>> ```
>>
>> and this chapter is included in **User_Guide.xml** with an **<xi:include>** tag, the document will not build with **$ condition: x86** set in the **publican.cfg** file.
>>
>> To exclude this chapter, add the *arch* attribute to the **<xi:include>** tag in **User_Guide.xml**, not to the **<chapter>** tag in **Installation_and_configuration-PPC.xml**.

> **xrefs and the arch attribute**
>
> If an **<xref>** points to content not included in the build due to the *arch* attribute, the build will fail. For example, with **arch: x86** set in the **publican.cfg** file, **$ publican build --formats=pdf --langs=en-US** will fail if the book has the tag **<xref linkend="Itanium_installation">** pointing to **<section id="Itanium_installation" arch="IA64">**.

books

specifies a space-separated list of books used in a remote set. Refer to Section 2, "Distributed sets" for more information on distributed sets.

brew_dist

specifies the build target to use for building the desktop RPM package in **Brew**, Red Hat's internal build system. This parameter defaults to **docs-5E**. Refer to Section 8.2, "The **$ publican package** command" and Section 4, "Packaging a brand" for more information on building RPM packages.

bridgehead_in_toc

specifies whether the contents of **<bridgehead>** elements (free-floating titles) should be included among other titles (such as section titles and chapter titles) in tables of contents. To enable this feature, set **bridgehead_in_toc: 1**. Otherwise, the parameter defaults to **0**, and **<bridgehead>**s are not included in tables of contents.

chunk_first

controls whether the first section should appear on a new page when rendered in HTML. To make the first section appear on a new HTML page, set this parameter to **chunk_first: 1**. Otherwise, the parameter defaults to **0**, and the first section appears on the same page of its chapter.

chunk_section_depth

controls the section depth at which **Publican** no longer splits sub-subsections onto a new page when rendering HTML. By default, this value is set to **4**.

> **Example 4.1. Controlling the section depth with chunk_section_depth**
>
> **chunk_section_depth: 0**
>
> > no section split. All sections with their sub-sections appear on the same page of the chapter they belong. The page succession is chapter 1, chapter 2, chapter 3, …
>
> **chunk_section_depth: 1**
>
> > the split is at "level 1" section. Each level section one with its sub-sections, appear on a new page. The page succession is chapter 1, 1.2, 1.3, 1.4 … chapter 2, 2.1, 2.2, 2.3 …
>
> **chunk_section_depth: 2**
>
> > the split is at "level 2" section. The page succession is chapter 1, 1.2, 1.2.2, 1.2.3, 1.2.4 … 1.3, 1.3.2, 1.3.3 …

chunk_section_depth: 3

> the split is at "level 3" section. The page succession is chapter 1, 1.2, 1.2.2, 1.2.2.2, 1.2.2.3, 1.2.2.4 … 1.3, 1.3.2, 1.3.2.2, 1.3.2.3 …

chunk_section_depth: 4 (default)

> the split is at "level 4" section. The page succession is chapter 1, 1.2, 1.2.2, 1.2.2.2, 1.2.2.2.2, 1.2.2.2.3, 1.2.2.2.4 … 1.2.3, 1.2.3.2, 1.2.3.2.2, 1.2.3.2.3 …

classpath

> sets the path to the *Java archive* (*jar*) files for **FOP**. **Publican** relies on Apache **FOP** — a Java application — to render documents as PDF files. The default path for **FOP**'s jar files on a computer with a Linux operating system is: `/usr/share/java/ant/ant-trax-1.7.0.jar:/usr/share/java/xmlgraphics-commons.jar:/usr/share/java/batik-all.jar:/usr/share/java/xml-commons-apis.jar:/usr/share/java/xml-commons-apis-ext.jar`

common_config

> sets the path to the **Publican** installation. The default location on a computer with a Linux operating system is `/usr/share/publican`. On a computer with a Windows operating system, the default location is `%SystemDrive%/%ProgramFiles%/publican` — most usually `C:/Program Files/publican`.

common_content

> sets the path to the **Publican** *common content* files. These files provide default formatting, plus some boilerplate text and generic graphics. The default location on a computer with a Linux operating system is `/usr/share/publican/Common_Content`. On a computer with a Windows operating system, the default location is `%SystemDrive%/%ProgramFiles%/publican/Common_Content` — most usually `C:/Program Files/publican/Common_Content`.

condition

> specifies conditions on which to prune XML before transformation. Refer to Section 9, "Conditional tagging" for more information.

Root nodes and conditional tagging

If the root node of an XML file is excluded with a conditional, your document will not build, because empty files are not valid XML. For example, if **Installation_and_configuration_on_Fedora.xml** contains a single chapter:

```
<?xml version='1.0' encoding='utf-8' ?>
<!DOCTYPE chapter PUBLIC "-//OASIS//DTD DocBook XML V4.5//EN"
"http://www.oasis-open.org/docbook/xml/4.5/docbookx.dtd" [
]>
<chapter id="chap-Installation_and_configuration_on_Fedora"
condition="Fedora">
<title>Installation and configuration on Fedora</title>

[text of chapter]

</chapter>
```

and this chapter is included in **User_Guide.xml** with an **<xi:include>** tag, the document will not build with **$ condition: Ubuntu** set in the **publican.cfg** file.

To exclude this chapter, add a condition to the **<xi:include>** tag in **User_Guide.xml**, not to the **<chapter>** tag in **Installation_and_configuration_on_Fedora.xml**.

xrefs and conditional tagging

If an **<xref>** points to content not included in the build due to conditional tagging, the build will fail. For example, with **$ condition: upstream** set in the **publican.cfg** file, **$ publican build --formats=pdf --langs=en-US** will fail if the book has the tag **<xref linkend="betasection">** pointing to **<section id="betasection" condition="beta">**.

confidential

marks a document as confidential. When this parameter is set to **1**, **Publican** adds the text specified by the *confidential_text* parameter (by default, **CONFIDENTIAL**) to the foot of each HTML page and the head of every page in a PDF document. The default value is **0** (no header or footer).

confidential_text

specifies the text to use when the *confidential* parameter is set to **1**. The default text is **CONFIDENTIAL**.

debug

controls whether **Publican** should display debugging messages as it works. When set to its default of **0**, **Publican** does not display debugging messages. Change this value to **1** to view these messages.

def_lang

sets the default language for a **Publican**-managed website. Tables of contents for languages other than the default language will link to documents in the default language when translations are not available. Refer to Section 8, "Packaging a document".

doc_url

provides a URL for the documentation team for this package. In HTML output, **Publican** links to this URL at the top right of each page, through the `image_right.png` image in the `Common_Content/images` directory for the brand. This parameter defaults to `https://fedorahosted.org/publican`

docname

specifies the document name. If set, this value overrides the content of the `<title>` tag in the `Book_Info.xml` file when you package a document. This value must contain only upper- and lower-case un-accented letters, digits, and the underscore and space characters ('a–z', 'A–Z', '0'–'9', and '_' and ' ').

dt_obsoletes

a package that a desktop package obsoletes.

dt_requires

a package that the desktop package requires, for example, a documentation menu package. Refer to Section 8.1.3, "Desktop menu entries for documents".

dtdver

specifies the version of the DocBook XML *Document Type Definition* (DTD) on which this project is based. **Publican** defaults to version 4.5. The specification for DocBook XML DTD version 4.5 is available from http://www.docbook.org/specs/docbook-4.5-spec.html.

> **A different DTD might slow your build**
>
> When you install **Publican**, you also install a local copy of the DocBook XML DTD version 4.5 and accompanying *Extensible Stylesheet Language* (XSL). If you set a version of the DTD for which there is no local support, **Publican** must download the appropriate DTD and XSL from an online source every time that it builds the document. Building your document is delayed while this download takes place. The combined size of the required files is around 70 MB.

dtd_type

Override Type for DocType. Must be a complete string.

> **Note**
>
> This parameter is only permitted in a brand.

dtd_uri

Override URI for DocType. Must be a complete string.

> **Note**
>
> This parameter is only permitted in a brand.

ec_id

sets the ID for an **Eclipse** help plugin. Every **Eclipse** help plugin must have a unique ID, and these generally follow Java package naming conventions — refer to http://java.sun.com/docs/codeconv/html/CodeConventions.doc8.html. By default, **Publican** sets the ID to *org.product.docname*. The ID that you set here also determines the directory name for this plugin in the **plugin** directory.

ec_name

sets the name of an **Eclipse** help plugin. This is the human-readable name visible in the help list in **Eclipse**. This name does not need to be unique or to follow a special convention. By default, **Publican** sets the name to *product docname*.

ec_provider

sets the provider name for an **Eclipse** help plugin. This should be your name, or the name of your project or organization. This name is presented to users and does not need to be unique or follow a special convention. By default, **Publican** sets the provider name to *Publican-Publican version*.

edition

specifies the edition number for this document.

> **Note**
>
> The **<edition>** tag was required by versions of Publican prior to 2.0, which used it to generate the version of a documentation package. This tag is now completely optional and does not affect packaging in any way.

extras_dir

the directory **Publican** will process extra files from. (Default: **extras**)

footer

specifies content that will be injected into the bottom of every page on the site.

generate_section_toc_level

controls the section depth at which **Publican** will generate a table of contents. At the default value of **0**, **Publican** will generate tables of contents at the start of the document and in parts, chapters, and appendixes, but not in sections. If (for example) the value is set to **1**, tables of contents also appear in each "level 1" section, such as sections 1.1, 1.2, 2.1, and 2.2. If set to **2**, tables of contents also appear in "level 2" sections, such as sections 1.1.1, 1.1.2, and 1.2.1.

Example 4.2. Setting the section depth at which tables of contents appear

generate_section_toc_level: 0 (default)

> **Publican** will generate tables of contents at the start of the document and in parts, chapters, and appendixes, but not in sections.
>
> **generate_section_toc_level: 1**
>
> > **Publican** will generate tables of contents also at the start of each "level 1" section, such as sections 1.1, 1.2 … 2.1, 2.2 …
>
> **generate_section_toc_level: 2**
>
> > **Publican** will generate tables of contents also at the start of each "level 2" section, such as as sections 1.1.1, 1.1.2. 1.1.3 … 1.2.1., 1.2.2, 1.2.3 …

ignored_translations

> specifies translations to ignore as comma-separated XML language codes; for example, **es-ES,it-IT**. If you build or package a book for a language filtered by this parameter, **Publican** ignores any translations that exist for this language, and builds or packages the book in the language of the original XML instead. Refer to Section 6, "Translating a document", and to Appendix F, *Language codes*.

img_dir

> the directory **Publican** will process images from. (Default: **images**)

info_file

> overrides the default Info file. Specifies where **Publican** looks for info fields. Use the full filename without the path.

license

> specifies the license this package uses. By default, **Publican** selects the GNU Free Documentation License (GFDL). Refer to Section 8, "Packaging a document".

mainfile

> specifies the name of the XML file in your document that contains the root XML node **<article>**, **<book>**, or **<set>**, and the name of the corresponding **.ent** file that contains the document's entities. For example, if you set **mainfile: master**, **Publican** looks for the root XML node in **master.xml** and the document entities in **master.ent**.
>
> If *mainfile* is not set, **Publican** looks for the root XML node in a file that matches the **<title>** of the document set in the **Article_Info.xml**, **Book_Info.xml**, or **Set_Info.xml** file, and looks for the document entities in a file with a corresponding name.

menu_category

> the desktop menu category (as defined by a corresponding **.menu** file) in which a document should appear when installed from a desktop RPM package. Refer to Section 8.1.3, "Desktop menu entries for documents".

os_ver

> specifies the operating system for which to build packages. **Publican** appends the value that you provide here to the RPM packages that it builds. For example, **.fc15** for Fedora 15. The default value is **.el5**, which signifies Red Hat Enterprise Linux 5 and operating systems derived from it. Refer to Section 8, "Packaging a document"

and Section 4, "Packaging a brand".

prod_url

provides a URL for the product to which this document applies. In HTML output, **Publican** links to this URL at the top left of each page, through the `image_left.png` image in the `Common_Content/images` directory for the brand. This parameter defaults to `https://fedorahosted.org/publican`.

product

specifies the product to which this documentation applies. If set, this value overrides the content of the `<productname>` tag in the `Book_Info.xml` file when you package a document. This value must include only contain upper- and lower-case un-accented letters, digits, and the underscore and space characters ('a–z', 'A–Z', '0'–'9', and '_' and ' ').

release

specifies the release number of this package. If set, this value overrides the value of `<pubsnumber>` in the `Book_Info.xml` file when you package a document. This value must include only digits ('0'–'9').

repo

specifies the repository from which to fetch remote books that form part of a distributed set. Refer to Section 2, "Distributed sets".

rev_dir

override the default Revision History file direction. By default **Publican** assumes the Revision History is sorted in descending order, newest versions at teh top, if you wish to change this and have the oldest revisions at the top, then set this parameter to **asc** or **ascending**.

rev_file

override the default Revision History file. Specifies where **Publican** looks for revision fields. Use the full filename without the path. When combined with the **Publican** action add_revision, it enables you to build a book without a `Revision_History.xml`.

scm

specifies the version control (or *source code management*) system used in the repository in that stores the remote books in a distributed set. At present, **Publican** can use only **Subversion** (SVN), and therefore uses **SVN** as its default setting. Refer to Section 2, "Distributed sets".

show_remarks

controls whether to display DocBook `<remark>`s in transformed output. By default, this value is set to **0**, which causes **Publican** to hide remarks. Set this value to **1** to display remarks. In **Publican**'s **common** brand, displayed remarks are highlighted in magenta.

sort_order

override the default sort weighting for books in a **Publican** website. Books are displayed on the website in descending sort order. For example, a book with sort order 10 appears before a book with sort order 5. By default, this value is set to 50.

src_url

> specifies the URL at which to find tarballs of source files. This parameter provides the **Source:** field in the header of an RPM spec file. Refer to Section 8, "Packaging a document".

tmp_dir

> specifies the directory for **Publican** output. By default, this is set to **tmp**, which creates a directory named **tmp** inside the directory that holds your article or book.

tmpl_path

> specifies the path to **Publican** templates. By default, this is set to **/usr/share/publican/templates**.

toc_js

> allows a site to override the template used when building the embedded toc using in web_style=1 sites. The template must be in the same directory that **toc.tmpl** is in. The template name must be must be of the form *toc_type+.tmpl*

toc_type

> specifies the name of a custom TOC template. By default, **Publican** looks for **toc-$toc_type.tmpl** in **/usr/share/publican/templates**. You can override this by setting an alternative path with **tmpl_path**.

toc_section_depth

> controls the depth of sections that **Publican** includes in the main table of contents. By default, this value is set to **2**. With the default setting, sections 1.1 and 1.1.1 will appear in the main table of contents, but section 1.1.1.1 will not. (Note that the first digit in these examples represents a chapter, not a section).

> **Example 4.3. Controlling the depth of sections in the main table of contents**
>
> **toc_section_depth: 0**
>
> > **Publican** will generate a main table of contents only for chapters.
>
> **toc_section_depth: 1**
>
> > **Publican** will generate a main table of contents only for chapters and "level 1" sections, such as 1, 1.1, 1.2, 1.3 … 9, 9.1, 9.2 … but not for sections 1.1.1, 1.1.2 …
>
> **toc_section_depth: 2 (default)**
>
> > **Publican** will generate tables of contents for chapters and "level 1 and "level 2" sections, such as 1, 1.1, 1.1.1, … 1,2, 1.2.1, 1.2.2 … but not for deeper sections x.x.x.x .

version

specifies the version number of that product to which this document applies. If set, this value overrides the content of the **<productnumber>** tag in the **Book_Info.xml** file when you package a document. This value must include only digits and the period ('0'–'9' and '.').

web_brew_dist

specifies the **brew** build target to use for building the web RPM packages. **Brew** is the internal build system used by Red Hat. By default, this value is set to **docs-5E**, representing documentation packages for Red Hat Enterprise Linux 5. Refer to Section 8, "Packaging a document".

web_formats

a comma-separated list of formats to include in the web RPM package. Refer to Section 8.2, "The **$ publican package** command".

web_home

specifies that the document is the home page of a documentation website, not a standard document. Refer to Chapter 7, *Building a website with Publican*.

> **Important — web_home is deprecated**
>
> In **Publican** 2.2, **web_home** is replaced by **web_type: home**. Support for **web_home** will be removed in a future version of **Publican**.

web_name_label

overrides the book name as it appears on the menu of a **Publican**-managed website. Refer to Chapter 7, *Building a website with Publican*.

web_obsoletes

specifies packages that the web RPM obsoletes. Refer to Section 8, "Packaging a document".

web_product_label

overrides the product name as it appears on the menu of a **Publican**-managed website. Refer to Chapter 7, *Building a website with Publican*.

web_style

sets the web style, which determines the layout and presentation of the website. Valid values are **1** and **2**. Style 1 features a navigation pane at the left side of the screen that provides access to all of the documents on the site. Style 2 offers a breadcrumb-like navigation system.

web_type

specifies that the document is descriptive content for a **Publican**-managed website rather than product documentation. This content includes the home page of the website (**web_type: home**), product description pages (**web_type: product**), and version description pages (**web_type: version**). Refer to Chapter 7, *Building a website with Publican*.

web_version_label

overrides the version number as it appears on the menu of a **Publican**-managed website. Set this value to **UNUSED** for general documentation that does not apply to any particular version of a product. Refer to Chapter 7, *Building a website with Publican*.

wkhtmltopdf_opts

Extra options to pass to **wkhtmltopdf**. e.g. **wkhtmltopdf_opts: "-O landscape -s A3"**

> **Help from the command line**
>
> Run the **$ publican help_config** command in the root directory of a book for a summary of these parameters.

1.2. Book_Info.xml

> **Article_Info.xml and Set_Info.xml**
>
> This description of the **Book_Info.xml** file applies to **Article_Info.xml** and **Set_Info.xml** files too. However, for the sake of simplicity, the file is referred to as **Book_Info.xml** throughout this section.

> **Packages other than RPM packages**
>
> This section discusses packaging documents for distribution through the **RPM Package Manager**. However, when you use the **$ publican package** command, **Publican** generates a tarball that you can use to build a package to distribute through different package manager software. If you run **publican package** on a computer on which **rpmbuild** is not installed, **Publican** still generates the tarball, even though it cannot then generate an RPM package from that tarball.

The **Book_Info.xml** file contains the key metadata concerning a book: the book's ID; title; subtitle; author and edition number. It also contains the name and version of the product that is documented, and an abstract.

Aside from constituting much of a book's front matter, this metadata is also used when building books as RPM packages. Usually, if you distribute a book as an RPM package, several of the tags included by default in **Book_Info.xml** must have appropriate data within them, and that data must conform to the requirements of the RPM format. You can override the data in these tags by using equivalent fields in the **publican.cfg** file, as discussed in this section.

Unless overridden in the **publican.cfg** file, data from seven of the default tags in **Book_Info.xml** is required to build books as RPMs. Most immediately, the file name of a book built as an RPM package is constructed as follows:

*productname-title-productnumber-language-edition-pubsnumber***.src.rpm**

Everything but *language* above is pulled from **Book_Info.xml** — you specify *language* when you build the book. As well, the **<subtitle>** and **** are used in the RPM spec file, to provide the *Summary:* field in the header and the *%description* field, respectively.

An example **Book_Info.xml** file, for the **Test_Book** book, is presented below. Details regarding this file, and what the RPM format requirements are for each tag, follow.

```
<?xml version='1.0' encoding='utf-8' ?>
<!DOCTYPE info [
<!ENTITY % BOOK_ENTITIES SYSTEM "Users_Guide.ent">
%BOOK_ENTITIES;
<!ENTITY % sgml.features "IGNORE">
<!ENTITY % xml.features "INCLUDE">
<!ENTITY % DOCBOOK_ENTS PUBLIC "-//OASIS//ENTITIES DocBook Character
Entities V4.5//EN" "http://www.oasis-
open.org/docbook/xml/4.5/dbcentx.mod">
%DOCBOOK_ENTS;
]>
<info conformance="121" version="5.0" xml:lang="en-US"
xmlns="http://docbook.org/ns/docbook"
xmlns:xlink="http://www.w3.org/1999/xlink">
 <title>Users' Guide</title>
  <subtitle>Publishing books, articles, papers and multi-volume sets
with DocBook XML</subtitle>
  <productname>Publican</productname>
  <productnumber>4.3</productnumber>
  <abstract>
  <para>
   This book will help you install <application>&PRODUCT;
</application>. It also provides instructions for using Publican to
create and publish DocBook XML-based books, articles and book sets.
This guide assumes that you are already familiar with DocBook XML.
   </para>

 </abstract>
  <keywordset>
  <keyword>publican</keyword>
   <keyword>docbook</keyword>
   <keyword>publishing</keyword>

 </keywordset>
  <subjectset scheme="libraryofcongress">
  <subject>
   <subjectterm>Electronic Publishing</subjectterm>

  </subject>
   <subject>
   <subjectterm>XML (Computer program language)</subjectterm>

  </subject>

 </subjectset>
  <mediaobject role="logo">
  <imageobject>
   <imagedata fileref="Common_Content/images/title_logo.svg"
format="SVG" />
  </imageobject>
   <textobject>
   <phrase>Team Publican</phrase>
  </textobject>
```

```
  </mediaobject>
   <mediaobject role="cover">
   <imageobject remap="lrg" role="front-large">
    <imagedata fileref="images/cover_thumbnail.png" format="PNG" />
   </imageobject>
   <imageobject remap="s" role="front">
   <imagedata fileref="images/cover_thumbnail.png" format="PNG" />
   </imageobject>
   <imageobject remap="xs" role="front-small">
   <imagedata fileref="images/cover_thumbnail.png" format="PNG" />
   </imageobject>
   <imageobject remap="cs" role="thumbnail">
   <imagedata fileref="images/cover_thumbnail.png" format="PNG" />
   </imageobject>

  </mediaobject>
   <xi:include href="Common_Content/Legal_Notice.xml"
 xmlns:xi="http://www.w3.org/2001/XInclude" />
   <xi:include href="Author_Group.xml"
 xmlns:xi="http://www.w3.org/2001/XInclude" />
  </info>
```

<bookinfo id="*book_id*">, **<articleinfo id="*article_id*">**, **<setinfo id="*set_id*">**

> The document ID is used internally and is not displayed to readers when the book is built. If you run the **$ publican clean_ids** command, any manually entered ID, including this one, changes to a *Doc_Name-Title* format, where *Title* is the title of the associated book, article, section, or chapter.

<productname>*productname*</productname>

> The name of the product or product stream to which the book, article, or set applies, for example: **Red Hat Enterprise Linux** or **JBoss Enterprise Application Platform**. When building a book as an RPM package, data in the **<productname>** tag is used as part of the file name of the package.
>
> Override this tag with the *product* variable in the **publican.cfg** file if the name of your product contains non-Latin characters, accented Latin characters, or punctuation marks other than the underscore.

> **Permitted characters**
>
> **Publican** uses data in this tag to generate part of the file name for RPM packages, unless overridden by data in the **publican.cfg** file. If you do not override this tag in the **publican.cfg** file, this tag must only contain upper- and lower-case un-accented letters, digits, and the hyphen-minus, period, underscore, and plus characters ('a–z', 'A–Z', '0'–'9', and '-', '.', '_', and '+') if you plan to build packages with **Publican**.

<title>*title*</title>

The title of the document (for example, **<title>Server Configuration Guide</title>**). The title appears under the product name in both HTML and PDF editions. A title is required to build an RPM package. When building a book as an RPM package the title is used as the part of the file name of the package.

The names of RPM packages can only contain certain basic ASCII characters. If the title of your document contains non-Latin characters, accented Latin characters, or punctuation marks other than the underscore, use the *docname* parameter in the **publican.cfg** file to set a name for the document in ASCII characters. When you build the document, the title appears as you set it with the **<title>** tag, but when you package the document, the value that you used in the *docname* parameter is used in the file name of the RPM package.

> **Permitted characters**
>
> **Publican** uses data in this tag to generate part of the file name for RPM packages, unless overridden by data in the **publican.cfg** file. If you do not override this tag in the **publican.cfg** file, this tag must only contain upper- and lower-case un-accented letters, digits, and the hyphen-minus, period, underscore, and plus characters ('a–z', 'A–Z', '0'–'9', and '-', '.', '_', and '+') if you plan to build packages with **Publican**.

By default, **Publican** also uses the contents of the **<title>** tag to find the file that contains the root XML node: **<article>**, **<book>**, or **<set>**. For example, if you set the title to **<title>Server Configuration Guide</title>**, **Publican** expects the root XML node to be in a file named **Server_Configuration_Guide.xml** and the document entities to be in a file named **Server_Configuration_Guide.ent**. To use a different name for these files, set the *mainfile* parameter in the document configuration file (by default, **publican.cfg**). Refer to Section 1.1, "The publican.cfg file".

<subtitle>*subtitle***</subtitle>**

The book's subtitle: an alternative, and commonly explanatory title for the book (for example: *Server Configuration Guide: Preparing Red Hat Enterprise Linux for Production Use*). The subtitle appears under the title in both HTML and PDF editions. A subtitle is also required to make a book available as an RPM package. When building a book as an RPM package, the subtitle is used as the *Summary* in the RPM spec file. The **rpm -qi** command returns the contents of several spec file fields, including the **Summary** field.

<productnumber>*productnumber***</productnumber>**

The version number of the product the book covers, for example '5.2' for Red Hat Enterprise Linux 5.2 and '4.3' for JBoss EAP 4.3.

Running the **$ publican create --name *Doc_Name* --version *version*** command correctly configures the product number.

Override this tag with the *version* variable in the **publican.cfg** file if the product version is anything other than a number.

> **Permitted characters**
>
> **Publican** uses data in this tag to generate part of the file name for RPM packages, unless overridden by data in the **publican.cfg** file. If you do not override this tag in the **publican.cfg** file, this tag must only contain numbers and the period ('0–9' and '.') if you plan to build packages with **Publican**.

<edition>*edition*</edition>

This is the edition number of the book. The first edition of the book should be 1.0 (unless you use 0.*x* for pre-release versions of a book). Subsequent editions should increment the 1.*x* to indicate to readers that the book is a new edition. The edition changes the version number in the file name when building a book with the **$ publican package** command.

For example, setting the edition to **1.2** and building the book using the **$ publican package --binary --lang=en-US** command creates an RPM file named ***productname*-*title*-*productnumber*-en-US-1.2-0.src.rpm**.

Running the **$ publican create --name *Doc_Name* --edition *x.y*** command correctly configures the edition.

Override this tag with the ***edition*** variable in the **publican.cfg** file if the edition of your document is identified by anything other than a number.

> **Permitted characters**
>
> **Publican** uses data in this tag to generate part of the file name for RPM packages, unless overridden by data in the **publican.cfg** file. If you do not override this tag in the **publican.cfg** file, this tag must only contain numbers and the period ('0–9' and '.') if you plan to build packages with **Publican**.

<pubsnumber>*pubsnumber*</pubsnumber>

The pubsnumber sets the release number (the last digit in the file name) when building a book with the **$ publican package** command. For example, setting the pubsnumber to **1** and building the book using the **publican package --binary --lang=en-US** command creates an RPM file named ***productname*-*title*-*productnumber*-en-US-*edition*-1.src.rpm**.

Override this tag with the ***release*** variable in the **publican.cfg** file if the release number of your document contains anything other than whole numbers.

> **Permitted characters**
>
> **Publican** uses data in this tag to generate part of the file name for RPM packages, unless overridden by data in the **publican.cfg** file. If you do not override this tag in the **publican.cfg** file, this tag must only contain numbers ('0–9') if you plan to build packages with **Publican**.

<para>*abstract*</para>

A short overview and summary of the book's subject and purpose, traditionally no more than a paragraph long. The abstract appears before the table of contents in HTML editions and on the second page of PDF editions. When a book is built as an

RPM package, the abstract sets the *Description* field of the RPM's spec file. This makes the abstract for a package available via the **rpm -qi** command.

You can add extra metadata to the **Book_Info.xml** file of a document, to support specific features in various output formats:

<keywordset>, <keyword>

Terms tagged with **<keyword>** and placed within a **<keywordset>** are added to a **<meta name="keywords">** entry in the head of HTML files and to the **Keywords** field of the properties of a PDF document.

<subjectset>, <subject>

Terms tagged with **<subject>** and placed within a **<subjectset>** are added to the **Subject** field of the properties of a PDF document and in the metadata of an ebook in EPUB format.

Consider using a *controlled vocabulary* when defining the subject of your document, for example, the *Library of Congress Subject Headings* (LCSH). Identify the chosen vocabulary with the *scheme* attribute in the **<subjectset>** tag, for example, **<subjectset scheme="libraryofcongress">**. You can search for LCSH subject headings through the Library of Congress *Authorities & Vocabularies* page: http://id.loc.gov/authorities/search/.

<mediaobject role="cover" id="epub_cover">

Use a **<mediaobject>** tag with the **role="cover"** and **id="epub_cover"** attributes to set cover art for an ebook in EPUB format. For example:

```
<mediaobject role="cover" id="epub_cover">
 <imageobject role="front-large" remap="lrg">
  <imagedata width="600px" format="PNG"
fileref="images/front_cover.png"/>
 </imageobject>
 <imageobject role="front" remap="s">
  <imagedata format="PNG" fileref="images/front_cover.png"/>
 </imageobject>
 <imageobject role="front-small" remap="xs">
  <imagedata format="PNG" fileref="images/front_cover.png"/>
 </imageobject>
 <imageobject role="thumbnail" remap="cs">
  <imagedata format="PNG"
fileref="images/front_cover_thumbnail.png"/>
 </imageobject>
</mediaobject>
```

As with all the other images in your document, place the cover images in the **images** subdirectory.

1.2.1. RPM packages, editions, impressions and versions

As noted above, the default **Book_Info.xml** used by **Publican** includes an *<edition>* tag.

If you distribute a book as an RPM package, the data placed within this tag sets the first two digits of the version number in the RPM file name.

So, an edition of '1.0' becomes a version of '1.0'.

Book_Info.xml also includes the **<pubsnumber>** tag. Any data placed within this tag changes the release number of RPM-packaged books.

A book with an edition of 1.0 and a pubsnumber of 5, would be version 1.0, release 5 (1.0-5).

The edition and pubsnumber are not tied to the **<productnumber>** tag also found in **Book_Info.xml**: **<productnumber>** denotes the version number of the product being documented or otherwise written about.

It is entirely possible to have a 2nd edition of a book pertaining to a particular version of a product.

In bibliography, two copies of a book are the same edition if they are printed using substantially the same type-set master plates or pages. ('Substantially' offers some allowance for typo corrections and other inconsequential changes.)

Book collectors routinely conflate 'first edition' with 'first print run', while bibliographers pay attention to the text commonly placed in the front matter of a book, which calls a 2nd print run off the same (or substantially the same) plates a '1st edition, 2nd impression' or '1st edition, 2nd printing'.

We recommend following bibliographic practice in this regard. When using **Publican** to re-publish a book from 'substantially the same XML', increment the **<pubsnumber>** tag, not the **<edition>** tag. It functions as a near-equivalent to the impression or printing number of traditional publishing.

As for changing the edition number, we recommend changing this in the same circumstances traditional publishers change the edition of a work: when it is revised and re-written significantly. What constitutes significant, and how much re-writing is needed to increment an edition number by a whole number and how much is needed to increment it by one-tenth of a whole number, is a matter of editorial discretion.

1.3. Author_Group.xml

Author_Group.xml is not required but is the standard place to record author, editor, artist and other credit details. The following is an example **Author_Group.xml** file:

```
<?xml version="1.0" encoding="utf-8"?>
<authorgroup xmlns="http://docbook.org/ns/docbook" version="5.0">
 <author>
  <orgname>FF0000 Headgear Documentation Group</orgname>
 </author>
 <author>
  <personname>
   <firstname>Dude</firstname>
   <surname>McDude</surname>
  </personname>
  <affiliation>
   <orgname>My Org</orgname>
   <orgdiv>Best Div in the place</orgdiv>
```

```
    </affiliation>
    <email>dude.mcdude@myorg.org</email>
   </author>
</authorgroup>
```

Author_Group.xml does not have to contain all of the above information: include as much or as little as required.

1.4. Chapter.xml

Articles and chapters

DocBook articles cannot contain chapters. If you use the **--type=article** option with **$ publican create**, **Publican** does not create a **Chapter.xml** file. Use sections to organize content within articles.

Refer to *DocBook: The Definitive Guide* by Norman Walsh and Leonard Muellner available at http://www.docbook.org/tdg/en/html/docbook.html for details of the different ways that sets, books, articles, parts, chapters, and sections interact. In particular, note that articles can be stand-alone documents, or can be incorporated into books.

The **Chapter.xml** file is a template for creating chapter files. Chapter files contain the content that make up a book. The following is a chapter template (**Chapter.xml**) that is created by the **$ publican create** command. Note the **DOCTYPE** is set to **chapter**:

```
<?xml version='1.0'?>
<!DOCTYPE chapter PUBLIC "-//OASIS//DTD DocBook XML V4.5//EN"
"http://www.oasis-open.org/docbook/xml/4.5/docbookx.dtd" [
]>

<chapter id="MYBOOK-Test">
 <title>Test</title>
 <para>
  This is a test paragraph
 </para>
 <section id="MYBOOK-Test-Section_1_Test">
  <title>Section 1 Test</title>
  <para>
   Test of a section
  </para>
 </section>

 <section id="MYBOOK-Test-Section_2_Test">
  <title>Section 2 Test</title>
  <para>
   Test of a section
  </para>
 </section>

</chapter>
```

This chapter has two sections, **Section 1 Test** and **Section 2 Test**. Refer to http://docbook.org/tdg/en/html/chapter.html for further information about chapters.

Note

The chapter file should be renamed to reflect the chapter subject. For example, a chapter on product installation could be named `Installation.xml`, whereas a chapter on setting up a piece of software would be better called `Setup.xml` or `Configuration.xml`.

1.5. *Doc_Name*.xml

The `Doc_Name.xml` file contains `xi:include` directives to include the other necessary XML files for the document, including chapters or sections contained in other XML files. For example, a book's `Doc_Name.xml` file brings together chapters that are contained in separate XML files.

The following is an example `Doc_Name.xml` file that describes a DocBook book — note the *DOCTYPE* is set to `book`.

Example 4.4. A DocBook book

```
<?xml version='1.0'?>
<!DOCTYPE book PUBLIC "-//OASIS//DTD DocBook XML V4.5//EN"
"http://www.oasis-open.org/docbook/xml/4.5/docbookx.dtd" [
]>

<book>
 <xi:include href="Book_Info.xml"
xmlns:xi="http://www.w3.org/2001/XInclude" />
 <xi:include href="Preface.xml"
xmlns:xi="http://www.w3.org/2001/XInclude" />
 <xi:include href="Chapter.xml"
xmlns:xi="http://www.w3.org/2001/XInclude" />
 <xi:include href="Revision_History.xml"
xmlns:xi="http://www.w3.org/2001/XInclude" />
 <index />
</book>
```

This example loads the `Book_Info.xml`, `Preface.xml`, `Chapter.xml`, and `Appendix.xml` XML files.

Important

The order in which chapters are listed matters. When this example book is built, `Book_Info.xml` will precede `Preface.xml` which will precede `Chapter.xml`, and so on.

The `Doc_Name.xml` file is not limited to using `xi:include` directives. You can create documents with a single XML file. The following is an example of a book created using a single XML file:

```
<book>

<chapter>
<title>Chapter 1</title>
<para>
 A paragraph in Chapter 1.
</para>
<section id="section1">
<title>Chapter 1 Section 1</title>
 <para>
  A paragraph in Section 1.
 </para>
</section>
<section id="section2">
<title>Chapter 1 Section 2</title>
 <para>
  A paragraph in Section 2.
 </para>
</section>
</chapter>

<chapter>
<title>Chapter 2</title>
<para>
 A paragraph in Chapter 2.
</para>
</chapter>

</book>
```

This book contains two chapters. Chapter one contains two sections. Refer to http://docbook.org/tdg/en/html/section.html for further information about sections, and http://docbook.org/tdg/en/html/book.html for further information about books.

1.6. *Doc_Name*.ent

The *Doc_Name*.**ent** file is used to define local entities. The *YEAR* and *HOLDER* entities are used for copyright information. By default, **Publican** sets *YEAR* to the current year, and inserts a message into *HOLDER* to remind you to specify the copyright holder for the document. If the *YEAR* and *HOLDER* entities are missing altogether, the document will not build.

Other entities might be required by the *brand* applied to your document. For example, the **Publican** brand for Fedora documents uses the entity **BOOKID** to specify how readers should refer to a document when they submit feedback about it.

```
<!ENTITY PRODUCT "MYPRODUCT">
<!ENTITY BOOKID "MYBOOK">
<!ENTITY YEAR "2008">
<!ENTITY HOLDER "YOUR NAME GOES HERE">
```

1.6.1. Entities and translation

Use entities with extreme caution

Entities offer convenience but they should be used with extreme caution in documents that will be translated. Writing (for example) **&FDS;** instead of **Fedora Directory Server** saves the writer time but transformed entities do not appear in the *portable object* (PO) files that translators use. Complete translations of documents containing entities are, as a consequence, impossible.

Entities present special obstacles to translators and can preclude the production of high-quality translations. The very nature of an entity is that the word or phrase represented by the entity is rendered exactly the same way every time that it occurs in the document, in every language. This inflexibility means that the word or word group represented by the entity might be illegible or incomprehensible in the target language and that the word or word group represented by the entity cannot change when the grammatical rules of the target language require them to change. Furthermore, because entities are not transformed when XML is converted to PO, translators cannot select the correct words that surround the entity, as required by the grammatical rules of the target language.

If you define an entity — **<!ENTITY LIFT "Liberty Installation and Formatting Tome">** — you can enter **&LIFT;** in your XML and it will appear as **Liberty Installation and Formatting Tome** every time the book is built as HTML, PDF or text.

Entities are not transformed when XML is converted to PO, however. Consequently, translators never see **Liberty Installation and Formatting Tome**. Instead they see **&LIFT;**, which they cannot translate.

Consider something as simple as the following English sentence fragment being translated into a related language: German.

> As noted in the *Liberty Installation and Formatting Tome*, Chapter 3…

A translation of this might be as follows:

> *Wie in dem Wälzer für die Installation und Formatierung von Liberty, Kapitel 3, erwähnt…*

Because there is no text missing, the title can be translated into elegant German. Also, note the use of *'dem'*, the correct form of the definite article ('the') when referring to a *Wälzer* ('tome') in this grammatical context.

By contrast, if entities are used, the entry in the PO file says:

```
#. Tag: para
#, no-c-format
msgid "As noted in the <citetitle>&LIFT;</citetitle>, Chapter 3…"
msgstr ""
```

The translation of this would probably run thus:

```
#. Tag: para
#, no-c-format
msgid "As noted in the <citetitle>&LIFT;</citetitle>, Chapter 3…"
msgstr "Wie in <citetitle>&LIFT;</citetitle>, Kapitel 3, erwähnt…"
```

And the presentation would be thus:

> *Wie in Liberty Installation and Formatting Tome, Kapitel 3, erwähnt…*

This, of course, leaves the title in English, including words like 'Tome' and 'Formatting' that readers are unlikely to understand. Also, the translator is forced to omit the definite article 'dem', a more general construction that comes close to a hybrid of English and German that German speakers call *Denglisch* or *Angleutsch*. Many German speakers consider this approach incorrect and almost all consider it inelegant.

Equivalent problems emerge with a fragment such as this:

> However, a careful reading of the *Liberty Installation and Formatting Tome* afterword shows that…

With no text hidden behind an entity, a German translation of this might be:

> *Jedoch ergibt ein sorgfältiges Lesen des Nachworts für den Wälzer für die Installation und Formatierung von Liberty, dass…*

If an entity was used to save the writer time, the translator has to deal with this:

```
#. Tag: para
#, no-c-format
msgid "However, a careful reading of the <citetitle>&LIFT;</citetitle>
afterword shows that…"
msgstr ""
```

And the translation would be subtly but importantly different:

```
#. Tag: para
#, no-c-format
msgid "However, a careful reading of the <citetitle>&LIFT;</citetitle>
afterword shows that…"
msgstr "Jedoch ergibt ein sorgfältiges Lesen des Nachworts für
<citetitle>&LIFT;</citetitle>, dass…"
```

When presented to a reader, this would appear as follows:

> *Jedoch ergibt ein sorgfältiges Lesen des Nachworts für Liberty Installation and Formatting Tome, dass…*

Again, note the missing definite article (*den* in this grammatical context). This is inelegant but necessary since the translator can otherwise only guess which form of the definite article (*den*, *die* or *das*) to use, which would inevitably lead to error.

Finally, consider that although a particular word never changes its form in English, this is not necessarily true of other languages, even when the word is a *proper noun* such as the name of a product. In many languages, nouns change (*inflect*) their form according to their role in a sentence (their grammatical *case*). An XML entity set to represent an English noun or noun phrase therefore makes correct translation impossible in such languages.

For example, if you write a document that could apply to more than one product, you might be tempted to set an entity such as **&PRODUCT;**. The advantage of this approach is that by simply changing this value in the ***Doc_Name*.ent** file, you could easily adjust the book to

document (for example) Red Hat Enterprise Linux, Fedora, or CentOS. However, while the proper noun **Fedora** never varies in English, it has multiple forms in other languages. For example, in Czech the name **Fedora** has six different forms, depending on one of seven ways in which you can use it in a sentence:

Table 4.1. 'Fedora' in Czech

Case	Usage	Form
Nominative	the subject of a sentence	*Fedora*
Genitive	indicates possession	*Fedory*
Accusative	the direct object of a sentence	*Fedoru*
Dative	the indirect object of a sentence	*Fedoře*
Vocative	the subject of direct address	*Fedoro*
Locative	relates to a location	*Fedoře*
Instrumental	relates to a method	*Fedorou*

For example:

- *Fedora je linuxová distribuce.* — Fedora is a Linux distribution.

- *Inštalácia Fedory* — Installation of Fedora

- *Stáhnout Fedoru* — Get Fedora

- *Přispějte Fedoře* — Contribute to Fedora

- *Ahoj, Fedoro!* — Hello Fedora!

- *Ve Fedoře 10...* — In Fedora 10…

- *S Fedorou získáváte nejnovější...* — With Fedora, you get the latest…

A sentence that begins *S Fedora získáváte nejnovější...* remains comprehensible to Czech readers, but the result is not grammatically correct. The same effect can be simulated in English, because although English nouns lost their case endings during the Middle Ages, English pronouns are still inflected. The sentence, 'Me see she' is completely comprehensible to English speakers, but is not what they expect to read, because the form of the pronouns **me** and **she** is not correct. **Me** is the accusative form of the pronoun, but because it is the subject of the sentence, the pronoun should take the nominative form, **I**. Similarly, **she** is nominative case, but as the direct object of the sentence the pronoun should take its accusative form, **her**.

Nouns in most Slavic languages like Russian, Ukrainian, Czech, Polish, Serbian, and Croatian have seven different cases. Nouns in Finno–Ugaric languages such as Finnish, Hungarian, and Estonian have between fifteen and seventeen cases. Other languages alter nouns for other reasons. For example, Scandinavian languages inflect nouns to indicate *definiteness* — whether the noun refers to 'a thing' or '*the* thing' — and some dialects of those languages inflect nouns both for definiteness *and* for grammatical case.

Now multiply such problems by the more than 40 languages that **Publican** currently

supports. Other than the few non-translated strings that **Publican** specifies by default in the **Doc_Name.ent** file, entities might prove useful for version numbers of products. Beyond that, the use of entities is tantamount to a conscious effort to inhibit and reduce the quality of translations. Furthermore, readers of your document in a language that inflects nouns (whether for case, definiteness, or other reasons) will not know that the bad grammar is the result of XML entities that you set — they will probably assume that the translator is incompetent.

1.7. Revision_History.xml

The **$ publican package** command searches for the first XML file in the document's XML directory containing a **<revhistory>** tag. **Publican** then uses that file to build the RPM revision history.

2. Adding images

Store images in the **images** subdirectory in the directory that holds your XML files. Use **./images/image-name** to insert images into a book. The following is an example that inserts the **testimage.png** image:

```
<mediaobject>
<imageobject>
 <imagedata fileref="./images/testimage.png" />
</imageobject>
<textobject><phrase>alternate text goes here</phrase></textobject>
</mediaobject>
```

Ensure that you supply a **<textobject>** so that your content remains accessible to people with visual impairments. In certain jurisdictions, you might have a legal responsibility to provide this accessibility — for example, if you or your organization must comply with Section 508 of the United States *Rehabilitation Act of 1973*.[1]

If your book contains images that need to be localized — for example, screenshots of a user interface in a language other than the original language of your book — place these images in the **images** subdirectories for each language directory. Make sure that the image file in the translated language has the same name as the image file in the original language. When you build the book in the translated language, **Publican** uses the file from the **images/** subdirectory of the translated language instead of the file from the **images/** subdirectory of the original language.

> **Image file locations**
>
> **Publican** only uses images in the **images** subdirectory of your XML directory and corresponding images in the **images** subdirectories of your translated languages. Images stored in other directories directories do not work.

3. Adding code samples

If your book contains code samples, place them in a directory named **extras/** in your source language directory and use an **<xi:include>** to pull the code file into the XML structure of your document. **Publican** does not parse any files that it finds in the **extras/** directory as XML.

Certain characters are reserved in XML, in particular, **&** and **<**. If you insert code samples directly into the XML of your document, you must escape these characters, either by marking them as **CDATA** or by replacing them with entities (& and < respectively).[2] If you place these files in the **extras/** directory, you do not need to escape these characters. This approach saves time, reduces the chances of introducing errors into either the document XML or the code itself, and makes future maintenance of the document and the code easier.

To include a code sample from the **extras/** directory in your document, follow this procedure:

1. Create the extras directory

   ```
   $ mkdir en-US/extras
   ```

2. Copy the code file to the extras directory

   ```
   $ cp ~/samples/foo.c en-US/extras/.
   ```

3. **xi:include** the sample file in your xml file

   ```
   <programlisting>
   <xi:include parse="text" href="extras/foo.c"
   xmlns:xi="http://www.w3.org/2001/XInclude" />
   </programlisting>
   ```

4. You can now edit **en-US/extras/foo.c** in your favorite editor without having to be concerned about how it will affect the XML.

The same approach works when you want to annotate your code with callouts. For example:

```
<programlistingco>
 <areaspec>
  <area id="orbit-for-parameter" coords='4 75'/>
  <area id="orbit-for-magnitude" coords='12 75'/>
 </areaspec>
 <programlisting language="Fortran"><xi:include parse="text"
href="extras/orbit.for"
 xmlns:xi="http://www.w3.org/2001/XInclude" /></programlisting>
 <calloutlist>
  <callout id="callout-for-parameter" arearefs="orbit-for-parameter">
   <para>
    The <firstterm>standard gravitational parameter</firstterm>
    (µ) is a derived value, the product of Newton's gravitational
    constant (G) and the mass of the primary body.
   </para>
  </callout>
  <callout id="callout-for-magnitude" arearefs="orbit-for-magnitude">
   <para>
    Since the mass of the orbiting body is many orders of magnitude
    smaller than the mass of the primary body, the mass of the
    orbiting body is ignored in this calculation.
   </para>
  </callout>
 </calloutlist>
</programlistingco>
```

■

Note the **<area>** elements that define the position of the callouts that will appear on the code sample. The **coords** attributes specify a line number and a column number separated by a space. In this example, callouts are applied to lines 4 and 12 of the code, lined up with each other in column 75. Although this approach means that you might have to adjust **coords** attributes if you ever modify the code to which they apply, it avoids mixing XML **<coords>** tags into the code itself.

4. Adding files

Publican allows you to include arbitrary files together with your documents. These files are included in RPM packages that you build with **Publican** and are installed on users' systems alongside the document itself. For example, you might want to include multimedia files of tutorials that complement the document, or sample files of source code or other materials that allow users to work through the examples or tutorials in a document.

To ship arbitrary files with a document, create a directory named **files** in the language directory for the original language (e.g. **en-US**) of the book (e.g. **My_Book**).

In the directory **My_Book**:

```
$ mkdir en-US/files
```

Copy the files to the directory **files**:

```
$ cp arbitrary_files en-US/files
```

5. Renaming a document

The **$ publican rename** command makes it easy for you to rename a document to give it a new title, or to change the name or version of the product to which the document applies. The command accepts up to three options:

--name *new_title*

> changes the title of the document. For example, to rename a document from *Server Configuration Guide* to *Server Deployment Guide*, change into the document's root directory and run:

> ```
> $ publican rename --name "Server Deployment Guide"
> ```

> Specifically, the command changes the content of the **<title>** tag in the **Article_Info.xml**, **Book_Info.xml**, or **Set_Info.xml** file, and sets a value for the *mainfile* parameter in the **publican.cfg** file so that **Publican** can still find the root XML node and the entities for the document.

> Note that the **$ publican rename** command does not change any file names. Therefore, the root XML node and the document entities are still located in files named after the original title of the document — **Server_Configuration_Guide** in the previous example.

--product *new_product*

changes the name of the product to which the document applies. For example, if the product was previously named ForceRivet but is now called PendantFarm, change into the document's root directory and run:

```
$ publican rename --product PendantFarm
```

The command changes the content of the **<productname>** tag in the **Article_Info.xml**, **Book_Info.xml**, or **Set_Info.xml** file.

--version *new_version*

changes the product version to which the document applies. For example, if the product version was previously 1.0 but is now 2.0 , change into the document's root directory and run:

```
$ publican rename --version 2.0
```

The command changes the content of the **<productnumber>** tag in the **Article_Info.xml**, **Book_Info.xml**, or **Set_Info.xml** file.

You can combine any combination of these options into a single command. For example:

```
$ publican rename --name "Server Deployment Guide" --product
PendantFarm --version 2.0
```

6. Translating a document

Support for localization of documents was a key consideration in the design of **Publican**. The general translation workflow for documents developed in **Publican** is as follows:

1. Complete the XML of a document.

   The XML for this version of the document should now be considered 'frozen'. If your document is stored in a version-controlled repository, you should now move this version into a separate directory or branch. This allows writers to begin work on subsequent versions of the document in one branch, while providing a stable base for translation in another branch.

2. Optional but recommended: *drop* the document to translation. Run:

   ```
   $ publican trans_drop
   ```

   Publican creates a new subdirectory, named **trans_drop/**. The **trans_drop/** subdirectory contains a snapshot of the source files of the document. When the **trans_drop/** directory is present in a documentation project, **Publican** uses its content as the basis for the commands documented later in this procedure.

3. Generate *portable object template* (POT) files from the XML files:

   ```
   $ publican update_pot
   ```

   If this is the first time that POT files have been created for this document, **Publican** creates a new subdirectory, named **pot**. The **pot** subdirectory holds a POT file for each XML file in the document. If **Publican** has created POT files for this document

previously, **Publican** updates the existing POT files to reflect any changes in the XML since the POT files were last updated.

> **Remove unused XML files**
>
> **Publican** generates a POT file for every XML file in the XML directory, whether the XML file is used in the document or not. If you transform unused XML files into POT files, you waste the time and effort of volunteer translators, and waste money if you are paying for translations.
>
> Use the **$ publican print_unused** command to generate a list of XML files that are not used in your document.

4. Generate *portable object* (PO) files from the POT files to begin translation into a particular language:

   ```
   $ publican update_po --langs=language_code
   ```

   where *language_code* is the code for the target language. Refer to Appendix F, *Language codes* for more information about language codes. You can provide multiple language codes, separated by commas, to generate PO files for more than one language at a time. For example:

   ```
   $ publican update_po --langs=hi-IN,pt-BR,ru-RU,zh-CN
   ```

   If this is the first time that PO files have been created for a particular language, **Publican** creates a new subdirectory, named with the language code that you specified with the **--langs=** option. This subdirectory holds a PO file for each POT file in **pot** subdirectory, plus a **Revision_History.xml** file that tracks the history of this particular translation. When created for the first time, the **Revision_History.xml** file records the date on which the PO files for this translation were created, and the version of the source language XML (taken from the source language's **Revision_History.xml** file) on which this translation is therefore based.

   If **Publican** has created PO files for this language previously, **Publican** updates the existing PO files to reflect any changes in the POT files since the PO files were last updated, and adds a new entry to the translation's **Revision_History.xml** file to record the date on which the PO files for this translation were refreshed, and the version of the source language XML on which the revision is based. You can update existing PO files in every subdirectory with the **--langs=all** option:

   ```
   $ publican update_po --langs=all
   ```

> **Remove unused POT files**
>
> **Publican** generates a PO file for every POT file in the **pot** directory, whether the POT file is based on a corresponding XML file that is used in the document or not, or whether a corresponding XML file even exists. If you transform POT files for unused or deleted XML files into PO files, you waste the time and effort of volunteer translators, and waste money if you are paying for translations.
>
> When you generate PO files, **Publican** presents you with a warning for any POT files that do not have corresponding XML files, but will generate the PO file nevertheless. However, **Publican** will not warn you if a POT file exists for an XML file that is not used in the document.

5. Translate the *strings* contained in the PO files.

6. If you are updating a previously published translation *of this revision in the source language*, use **Publican**'s **publican add_revision** command to describe your changes or corrections. **Publican** updates the **Revision_History.xml** file for you.

   If the document has changed in its original language, use the **publican trans_drop**, **publican update_pot**, and **publican update_po** commands as described earlier in this procedure instead.

7. Build the document in the target language, for example:

   ```
   $ publican build --formats=html,html-single,pdf --langs=is-
   IS,nb-NO
   ```

   or package it in the target language, for example:

   ```
   $ publican package --lang=is-IS
   ```

   You can build the document in all languages for which you have translations with the **--langs=all** option, but note that you must package each language individually. Refer to Section 7, "Building a document" for more information on building a document, and Section 8, "Packaging a document" on packaging a document.

6.1. Translation Author Group

Translation takes place after a book has been finalized. You do not need to know who will translate your book in order to give them credit. Create **$translation/Author_Group.xml** and add a valid DocBook authorgroup. The translator can add their details to this file and **Publican** will append it to **$source_lang/Author_Group.xml** when the book is build. This allows authors to finalize the original text without needing to know who will translate the book.

6.2. Translating Indexes and Glossaries

DocBook automatically collates and sorts **<glossentry>** elements into a book's glossary; and **<primary>**, **<secondary>**, and **<tertiary> <indexterm>** elements into a book's index. Entries are sorted automatically, and although this system works well for languages written with an alphabet, abugida, or syllabic script, languages written with logograms sort

less well.

To manually adjust the sort order of a glossary entry or index entry, manually add DocBook's **sortas** attribute to the XML element. For example, to ensure that the Japanese word 暗号化 sorts correctly in an index, specify:

```
#. Tag: indexterm
#, no-c-format
msgid "<primary>encryption</primary>"
msgstr "<primary sortas="あんごうか">暗号化</primary>"
```

Similarly, to ensure that the Japanese word 暗号化 sorts correctly in a glossary, specify:

```
#. Tag: glossentry
#, no-c-format
msgid "<glossterm>encryption</glossterm>"
msgstr "<glossterm sortas="あんごうか">暗号化</glossterm>"
```

7. Building a document

> **Note — Customizing output**
>
> The parameters set in the document configuration file (by default, **publican.cfg**) allow you to control many aspects of the way in which a document is presented — refer to Section 1.1, "The publican.cfg file".
>
> If you maintain multiple versions of a document, you can create a configuration file for each version. When building the document, you can use the **--config** to specify which configuration file (and therefore which set of parameters) to use in a particular build, for example:
>
> ```
> $ publican build --formats html,pdf --langs en-US,de-DE,hu-HU --
> config community.cfg
> ```

To build a document:

1. Confirm the *YEAR* and *HOLDER* entities have been configured in the *Doc_Name*.ent file, as described in Section 1.6, "*Doc_Name*.ent".

2. Change into the root directory of the document. For example, if the document is named **Test_Book** and is located in the **~/books/** directory, run the following command:

   ```
   $ cd ~/books/Test_Book
   ```

3. Run a test for any errors that would stop the book from building in your chosen language, for example:

   ```
   $ publican build --formats=test --langs=en-US
   ```

4. Run the following command to build the book:

```
$ publican build --formats=formats --langs=languages
```

Replace *formats* with a comma-separated list of the formats that you want to build; for example, **html,html-single,pdf**. Replace *langs* with a comma-separated list of the languages that you want to build; for example, **en-US,sv-SE,uk-UA,ko-KR**.

Formats for the build action

html

> **Publican** outputs the document as in multiple HTML pages, with each chapter and major section on a separate page. **Publican** places an index at the start of the document, and places navigational elements on each page.
>
> Use the *chunk_first* and *chunk_section depth* parameters in the **publican.cfg** file to control how **Publican** chunks sections in this format.

html-single

> **Publican** outputs the document as a single HTML page with the table of contents near the top of the page.

html-desktop

> **Publican** outputs the document as a single HTML page with the table of contents located in a separate pane on the left side of the document.

man

> **Publican** outputs the document as a manual page ("man page") for use with Linux, UNIX, and similar operating systems.

pdf

> **Publican** outputs the document as a PDF file.

test

> **Publican** validates the XML structure of the book, but does not transform the XML into another format.

txt

> **Publican** outputs the document as a single text file.

epub

> **Publican** outputs the document as an e-book in EPUB format.

eclipse

> **Publican** outputs the document as an **Eclipse** help plugin. Refer to Section 1.1, "The publican.cfg file" for details of specifying **Eclipse**'s *id*, *name*, and *provider-name* parameters with **Publican**'s *ec_id*, *ec_name*, and *ec_provider* parameters.

The following examples demonstrate commonly used **$ publican build** commands:

$ publican build --help

> List available **$ publican build** options for building a book.

```
$ publican build --formats=test --langs=languages
```

> Check that the book can be built correctly. Build **--formats=test** before running any other **$ publican build** command, and before checking a book back into a version-controlled repository from which other contributors might download it.

```
$ publican build --formats=html --langs=languages
```

> Build the book in multi-page HTML format. The HTML output will be located in the *Doc_Name*/tmp/*language*/html/ directory. Each chapter and major section is placed in a separate HTML file. You can control the depth at which **Publican** places subsections into separate HTML files with the **chunk-section-depth** parameter in the **publican.cfg** — refer to Section 1.1, "The publican.cfg file".

```
$ publican build --formats=html-single --langs=languages
```

> Build the book in single-page HTML format. The output will be a single HTML file located in the *Doc_Name*/tmp/*language*/html-single/ directory.

```
$ publican build --formats=pdf --langs=languages
```

> Build the book as a PDF file. **Publican** relies on an external application, **FOP** to render PDF. Therefore, building PDF might not be available on all systems, depending on the availability of **FOP**. The output will be a single PDF file located in the *Doc_Name*/tmp/*language*/pdf/ directory.

```
$ publican build --formats=html,html-single,pdf --langs=languages
```

> Build the book in multi-page HTML, single-page HTML, and PDF formats.

7.1. Building a document without validation

Publican validates your XML against the DocBook *document type definition* (DTD) before it builds the content. However, while a document is under development, you might sometimes want to skip validation while building, especially if the document contains cross-references (**<xref>**s) to sections of the document that do not yet exist. To skip validation, run **$ publican build** with the **--novalid** option. Cross-references to non-existent content appear in the built document as three question marks: **???**.

Because the document has not been validated against the DTD, the quality of the output produced when you build with the **--novalid** option is highly suspect. Do not publish documentation that you have built with the **--novalid** option.

8. Packaging a document

> **Packages other than RPM packages**
>
> This section discusses packaging documents for distribution through the **RPM Package Manager**. However, when you use the **$ publican package** command, **Publican** generates a tarball that you can use to build a package to distribute through different package manager software. If you run **publican package** on a computer on which **rpmbuild** is not installed, **Publican** still generates the tarball, even though it cannot then generate an RPM package from that tarball.

> **Note — Customizing output**
>
> The parameters set in the document configuration file (by default, **publican.cfg**) allow you to control many aspects of the way in which a document is presented and packaged — refer to Section 1.1, "The publican.cfg file".
>
> If you maintain multiple versions of a document, you can create a configuration file for each version. When packaging the document, you can use the **--config** to specify which configuration file (and therefore which set of parameters) to use in a particular build, for example:
>
> ```
> $ publican package --lang hi-IN --config community.cfg
> ```

Publican not only builds documentation, but it can package built content for distribution to individual workstations and to web servers as *RPM packages*. RPM packages are used to distribute software to computers with Linux operating systems that use the **RPM Package Manager**. These operating systems include Red Hat Enterprise Linux, Fedora, Mandriva Linux, SUSE Linux Enterprise, openSUSE, Turbolinux, and Yellow Dog Linux, to name just a few.

8.1. Types of RPM packages

Publican can produce both *source RPM packages* (*SRPM packages*) and *binary RPM packages*. Furthermore, both SRPM packages and binary RPM packages can be configured to deploy to workstations or web servers.

8.1.1. Source RPM packages and binary RPM packages

SRPM packages contain the source code used to generate software rather than the software itself. To use an SRPM package, a computer must *compile* the source code into software — or in this case, into documents. SRPM packages of **Publican** documents contain XML files and a *spec file* rather than finished documents in formats such as HTML and PDF. You cannot install documentation directly from SRPM packages with current versions of the **RPM Package Manager**.

Conversely, binary RPM packages contain software — or in this case, a document — that is ready to copy to a location in the computer's file system and use immediately. The contents of the binary RPM package do not need to be compiled by the computer onto which they are installed. Therefore, when installing documentation solely for local use the computer does not need to have **Publican** installed. Installing **Publican**-generated documentation on a webserver *does* requires **Publican** to be installed, but for reasons other than compiling the source code. Refer to Section 8.1.2, "Desktop packages and web packages" for a description of the differences between documentation installed for local use (*desktop RPMs*) and documentation installed to serve as web content (*web RPMs*).

8.1.2. Desktop packages and web packages

Publican can package documents for reading on a computer workstation (a *desktop RPM package*) or to install on a web server and publish on the World Wide Web (a *web RPM package*). The desktop RPM package of a **Publican** document and the web RPM package of the same document differ in that the desktop RPM package installs documentation only for local use on a computer, while the web RPM installs documentation for local use, but also to be served to the World Wide Web.

Desktop (binary) RPM packages of **Publican** documents contain the documentation in single-page HTML format. Documents distributed in these packages are installed in a subdirectory of **/usr/share/doc/**, the location specified by the *Filesystem Hierarchy Standard* (*FHS*) for 'Miscellaneous documentation'.[3] The desktop RPM package also contains a *desktop file*, to be placed in **/usr/share/applications/**. This file enables *desktop environments* to add the installed document to their menus for ease of reference by users. By default, the menu item appears under **System → Documentation** on the GNOME desktop. To customize the placement of the menu item, create a documentation menu package to supply **.directory** and **.menu** files and set the *dt_requires* and *menu_category* parameters in the **publican.cfg** file to require this package and supply the appropriate menu category. Refer to Section 8.1.3, "Desktop menu entries for documents"

By default, web RPM packages of **Publican** documents contain the documentation in single-page HTML, multi-page HTML, EPUB, and PDF formats. The formats included vary if:

≫ you publish documentation in a language in which PDF output is not currently supported. **Publican** relies on **FOP** to generate PDF output. **FOP** does not presently support right-to-left text (for example, Arabic, Persian, or Hebrew). Furthermore, because **FOP** cannot presently specify fonts on a character-by-character basis, a lack of available fonts in Indic scripts that also include Latin glyphs prevents **Publican** from reliably generating PDF output in Indic languages. By default, **Publican** does not include PDF files in web RPM packages generated in Arabic, Persian, Hebrew, or any Indic language.

≫ your book or your brand contains the *web_formats* parameter. The value of this parameter overrides the default formats that **Publican** packages. For example, to publish the document only as single-page HTML, PDF, and text, set **web_formats: "html-single,pdf,txt"**

Built content is installed in subdirectories of **/var/www/html/**, a common *document root* for web servers. Note that the web SRPM package generates both a web binary RPM package and desktop binary RPM package.

8.1.3. Desktop menu entries for documents

By default, RPM packages of **Publican** documents for desktop use appear on the GNOME desktop under the **System → Documentation** menu. When users have large numbers of documents installed on their systems, this menu becomes very cluttered and difficult to navigate. Documentation for many different products and perhaps different languages becomes intermixed, adding to the confusion.

To group documentation for your product under a separate submenu within the GNOME **System → Documentation** menu, you must:

≫ create and distribute a desktop menu package that creates the new submenu.

≫ specify the menu *category* in the document, and optionally, have the documentation package *require* the desktop menu package.

Note that the **Documentation** menu does not group entries under a submenu until two or more documents are installed that belong on that submenu. The first document appears under **System → Documentation**.

8.1.3.1. Creating an desktop menu package

A desktop menu package consists of:

≫ a *desktop entry* (**.directory**) file that provides metadata about the new submenu.

≫ a *desktop menu* (**.menu**) file that defines the position of the new submenu within the **Documentation** menu.

The structure for the **.directory** file for **Publican**-generated documentation is as follows:

≫ the *group header* **[Desktop Entry]**

≫ the *Name* parameter, set to the name of the submenu that you want to place under the **Documentation** menu.

≫ optionally, localizations of the *Name* parameter, in the format *Name[language_code]* where *language_code* is a language code in glibc format, *not* the XML format that **Publican** uses for language codes.

≫ the *Comment* parameter, set to a description of the new submenu.

≫ optionally, localizations of the *Comment* parameter, in the format *Comment[language_code]* where *language_code* is a language code in glibc format, *not* the XML format that **Publican** uses for language codes.

≫ the *Type* parameter, set to **Directory**.

≫ the *Encoding* parameter, set to **UTF-8**.

Example 4.5. Example .directory file

The following file, **menu-example.directory** illustrates the structure of a desktop entry file.

```
[Desktop Entry]
Name=Example
Name[fr]=Exemple
Name[it]=Esempio
Comment=Example Documentation menu
Comment[fr]=Exemple d'une menu de documentation
Comment[it]=Esempio di un menù di documentazione
Type=Directory
Encoding=UTF-8
```

The desktop entry file is placed in **/usr/share/desktop-directories/**

For a full description of how desktop entries work, refer to the *Desktop Entry Specification*, available from http://standards.freedesktop.org/entry-spec/latest/

A desktop menu file is an XML file that contains:

≫ a document type declaration for the freedesktop.org Desktop Menu Specification:

```
<!DOCTYPE Menu PUBLIC "-//freedesktop//DTD Menu 1.0//EN"
"http://www.freedesktop.org/standards/menu-spec/1.0/menu.dtd">
```

≫ a *root element*, **<Menu>**, that contains:

▪ a **<Name>** element with the content **Documentation**

- another **<Menu>** element that in turn contains:

  - a **<Name>** element with the content **Documentation** (just like the root element)

  - a **<Directory>** element with its content the name of the desktop entry file you created, for example:

    ```
    <Directory>menu-example.directory</Directory>
    ```

  - an **<Includes>** element with the content **X-*category_name***, where *category_name* is an identifier for the documents that will be grouped together under this menu entry. For example:

    ```
    <Includes>X-Example-Docs</Includes>
    ```

Example 4.6. Example .menu file

The following file, **menu-example.menu** illustrates the structure of a desktop menu file.

```
<!DOCTYPE Menu PUBLIC "-//freedesktop//DTD Menu 1.0//EN"
 "http://www.freedesktop.org/standards/menu-spec/1.0/menu.dtd">
<Menu>
 <Name>Documentation</Name>
 <Menu>
  <Name>Documentation</Name>
  <Menu>
   <Name>Example</Name>
   <Directory>menu-example.directory</Directory>
   <Include>
    <Category>X-Example-Docs</Category>
   </Include>
  </Menu>
 </Menu>
</Menu>
```

The desktop menu file is placed in **/etc/xdg/menus/settings-merged/**

For a full description of how desktop menus work, refer to the *Desktop Menu Specification*, available from http://standards.freedesktop.org/desktop-menu-spec/latest/

8.1.3.2. Setting a desktop menu category

To place a document in a submenu of **System → Documentation**, set the *menu_category* parameter in its **publican.cfg** file to match the content of the **<Includes>** element in the corresponding desktop menu file. For example, consider a desktop menu file that contains the element:

```
<Includes>X-Example-Docs</Includes>
```

To place a document in the submenu defined by this desktop menu file, the document's **publican.cfg** file should contain:

```
menu_category: X-Example-Docs
```

Important

Publican will process the string in menu_category and replace __**LANG**__ with the current language. This allows menus to be customized on a per language basis.

```
menu_category: X-Example-Docs-__LANG__
```

Note that you can include this parameter in the **defaults.cfg** file or **overrides.cfg** file of a brand so that all documents built with that brand are grouped into this submenu automatically without you having to set the *menu_category* parameter in each document.

If you ship the desktop menu and desktop entry files in an RPM package, you can make RPM packages of documentation *require* the desktop menu package. With this dependency set, the desktop menu package is installed automatically on users' systems when they install a documentation package, which ensures that the documentation appears under the submenu you have created for your project. Set the dependency with the *dt_requires* parameter in the document's **publican.cfg** file. For example, if you ship a desktop menu package named foodocs-menu, set:

```
dt_requires: foodocs-menu
```

Note that you can include this parameter in the **defaults.cfg** file or **overrides.cfg** file of a brand so that all documents built with that brand require the same desktop menu package.

8.2. The `$ publican package` command

Use the **$ publican package --lang=*Language_Code*** command to package documents for distribution in the language that you specify with the **--lang** option. Refer to Appendix F, *Language codes* for more information about language codes.

If you run **$ publican package** with no options other than the mandatory **--lang** option, **Publican** produces a web SRPM package. The full range of options for **publican package** is as follows:

--lang *language*
    specifies the language in which to package the documentation.

> **Incomplete translations**
>
> If translation in a particular language is not complete by the scheduled release date, consider marking the language with the ***ignored_translations*** parameter in the document's **publican.cfg** file. The package will be named appropriately for the language, but will contain documentation in the original language of the XML rather than a partial translation. When translation is complete, remove the ***ignored_translations*** parameter, increase the release number in the **Project-Id-Version** field in the **Book_Info.po** file for that language, and generate the package again. When you distribute the revised package, it becomes available to replace the original untranslated package.

--config *filename*

   specifies that **Publican** should use a configuration file other than the default **publican.cfg** file.

--desktop

   specifies that **Publican** should create a desktop RPM package rather than a web RPM package.

--brew

   specifies that **Publican** should push the completed package to **Brew**. **Brew** is the build system used internally by Red Hat; this option is meaningless outside Red Hat.

--scratch

   when used together with the **--brew** and **--desktop** options, specifies that an SRPM package should be built as a *scratch build* when sent to **Brew**. Scratch builds are used to verify that an SRPM package is structured correctly, without updating the package database to use the resulting package.

--short_sighted

   specifies that **Publican** should build the package without including the version number of the software (***version*** in the **publican.cfg** file) in the package name.

> **Omitting the software version number**
>
> Much software documentation is version-specific. At best, the procedures described in the documentation for one version of a product might not help you to install, configure, or use a different version of the product. At worst, the procedures described in the documentation for one version might be misleading or even harmful when applied to a different version.
>
> If you distribute documentation as RPM packages without version numbers in the package names, the **RPM Package Manager** on users' computers will automatically replace any existing documentation with the documentation for the latest version; users will not have access to documentation for more than one version of the software at a time. Be certain you want this outcome.

--binary

   specifies that **Publican** should build the package as a binary RPM package.

After you run the **$ publican package** command, **Publican** outputs completed SRPM packages to the document's **tmp/rpm** directory, and completed binary RPM packages to the document's **tmp/rpm/noarch** directory.

By default, **Publican** documentation packages are named:

productname-title-productnumber-[web]-language-edition-pubsnumber. *[.
[build_target].noarch].file_extension*.

Publican uses the information in the document's configuration file (by default, **publican.cfg**) to supply the various parameters in the file name, and then information in the **Book_Info.xml** file for any parameters missing from the configuration file. Refer to Section 1, "Files in the book directory" for details of the parameters used in these files. Additionally, note that:

➤ web RPM packages include the element **-web-** between the product version and the language code.

➤ SRPM packages have the file extension **.src.rpm** but binary RPM packages have the file extension **.rpm**

➤ binary RPM packages include *build_target*.**noarch** before the file extension, where *build_target* represents the operating system and version that the package is built for as set by the *os_ver* parameter in the **publican.cfg** file. The **noarch** element specifies that the package can be installed on any system, regardless of the system architecture.

➤ use of the **--short_sighted** option removes the *-productnumber-* from the package name.

➤ packages of translated documents take their release numbers from the *Project-Id-Version* parameter in the **Article_Info.po** or **Book_Info.po** file. This release number is specific to a particular language and bears no relationship to the release numbers of the same document in the original language or any other language.

8.2.1. The $ publican package command — Example usage

The following examples illustrate some common options, illustrated with the *Foomaster 9 Configuration Guide*, edition 2, revision 6.

$ publican package --lang=cs-CZ

> produces a web SRPM package named Foomaster-Configuration_Guide-9-web-cs-CZ-2-6.src.rpm that contains XML source files in Czech, together with a spec file.

$ publican package --desktop --lang=cs-CZ

> produces a desktop SRPM package named Foomaster-Configuration_Guide-9-cs-CZ-2-6.src.rpm that contains XML source files in Czech, together with a spec file.

$ publican package --binary --lang=cs-CZ

> produces both a web binary RPM package named Foomaster-Configuration_Guide-9-web-cs-CZ-2-6.el5.noarch.rpm and a desktop binary RPM package named Foomaster-Configuration_Guide-9-cs-CZ-2-6.el5.noarch.rpm that contain documentation in Czech, built for the Red Hat Enterprise Linux 5 operating system.

$ publican package --desktop --binary --lang=cs-CZ

produces a desktop binary RPM package named Foomaster-Configuration_Guide-9-cs-CZ-2-6.el5.noarch.rpm that contains documentation in Czech, built for the Red Hat Enterprise Linux 5 operating system.

$ publican package --desktop --short_sighted --lang=cs-CZ

produces a desktop SRPM package named Foomaster-Configuration_Guide-cs-CZ-2-6.src.rpm that contains documentation in Czech. This package will replace any Configuration Guides for previous versions of **Foomaster** that exists on a system. Users cannot have access to both the *Foomaster 8 Configuration Guide* and the *Foomaster 9 Configuration Guide*.

9. Conditional tagging

In some cases you may need to maintain multiple versions of a book; for example, a HOWTO guide for product FOO can have an upstream version and an enterprise version, with very subtle differences between them.

Publican makes it easy to manage differences between multiple versions of a book by allowing you to use a single source for all versions. *Conditional tagging* allows you to make sure that version-specific content only appears in the correct version; that is, you *conditionalize* the content.

To conditionalize content in a book, use the tag attribute **condition**. For example, let's say the book *How To Use Product Foo* has an "upstream", "enterprise", and "beta" version:

```
<para condition="upstream">
 <application>Foo</application> starts automatically when you boot
the system.
</para>

<para condition="enterprise">
 <application>Foo</application> only starts automatically when you
boot the system when installed together with
<application>Bar</application>.
</para>

<para condition="beta">
 <application>Foo</application> does not start automatically when you
boot the system.
</para>

<para condition="beta,enterprise">
 To make <application>Foo</application> start automatically at boot
time, edit the <filename>/etc/init.d/foo</filename> file.
</para>
```

To build a specific version (and thereby capture all content conditionalized for that version), add the **condition: *version*** parameter to the **publican.cfg** file and run the **$ publican build** command as normal. For example, if you add **condition: upstream** to the **publican.cfg** file of *How To Use Product Foo* and run:

```
$ publican build --formats=pdf --langs=en-US
```

Publican filters out all tags with condition attributes other than **condition="upstream"** and builds *How To Use Product Foo* in as a PDF file in American English.

Root nodes and conditional tagging

If the root node of an XML file is excluded with a conditional, your document will not build, because empty files are not valid XML. For example, if **Installation_and_configuration_on_Fedora.xml** contains a single chapter:

```
<?xml version='1.0' encoding='utf-8' ?>
<!DOCTYPE chapter PUBLIC "-//OASIS//DTD DocBook XML V4.5//EN"
"http://www.oasis-open.org/docbook/xml/4.5/docbookx.dtd" [
]>
<chapter id="chap-Installation_and_configuration_on_Fedora"
condition="Fedora">
<title>Installation and configuration on Fedora</title>

[text of chapter]

</chapter>
```

and this chapter is included in **User_Guide.xml** with an **<xi:include>** tag, the document will not build with **$ condition: Ubuntu** set in the **publican.cfg** file.

To exclude this chapter, add a condition to the **<xi:include>** tag in **User_Guide.xml**, not to the **<chapter>** tag in **Installation_and_configuration_on_Fedora.xml**.

xrefs and conditional tagging

If an **<xref>** points to content not included in the build due to conditional tagging, the build will fail. For example, with **$ condition: upstream** set in the **publican.cfg** file, **$ publican build --formats=pdf --langs=en-US** will fail if the book has the tag **<xref linkend="betasection">** pointing to **<section id="betasection" condition="beta">**.

9.1. Conditional tagging and translation

Use conditional tagging with great caution

Use conditional tagging only with great caution in books that you expect to be translated, as conditional tagging creates extra difficulties for translators.

Conditional tagging creates difficulty for translators in two ways: it obscures context in the *portable object* (PO) files through which translators work, and it makes proofreading more difficult for translators who are not deeply familiar with your book and all the conditions that you have set.

The PO files for the document contain the full set of tags from the XML files, regardless of any conditions set. When translators open the PO file for the example from *How To Use Product Foo* in Section 9, "Conditional tagging", they see:

```
#. Tag: para
#, no-c-format
msgid "<application>Foo</application> starts automatically when you
```

```
boot the system."
msgstr ""

#. Tag: para
#, no-c-format
msgid "<application>Foo</application> only starts automatically when
you boot the system when installed together with
<application>Bar</application>."
msgstr ""

#. Tag: para
#, no-c-format
msgid "<application>Foo</application> does not start automatically
when you boot the system."
msgstr ""

#. Tag: para
#, no-c-format
msgid "To make <application>Foo</application> start automatically at
boot time, edit the <filename>/etc/init.d/foo</filename> file."
msgstr ""
```

Because PO files include do not include attributes from tags, there is nothing obvious here to show translators that these paragraphs are alternatives to each other and that the writer does not intend that meaning should flow from one paragraph to the next.

In this example, the only paragraphs where the meaning flows logically from one to the next is between paragraphs three and four. Because both of these paragraphs appear in the book for the beta version of the product, they (hopefully) make sense together. Beyond that, the use of conditionals here requires translators to translate individual small chunks of content without the ability to follow the context from one paragraph to the next. When translators must work under these conditions, the quality of the translation will suffer, or the time required — and therefore the cost of translation — will increase.

Furthermore, unless the translators who work on your book know how to configure **Publican**'s **publican.cfg** file and are aware of the valid conditions for your book, they cannot proofread their work. Without that knowledge, when translators proofread a document, they will wonder why they cannot find text that they know they translated and can find easily in the PO file. If you must use conditionals in your book, you must be prepared to provide a greater degree of support to your translators than you would otherwise provide.

As an alternative to conditionals, consider maintaining separate versions of your book in separate branches of a version-controlled repository. You can still share XML files and even PO files between the various branches as necessary, and some version control systems allow you to share changes readily among branches.

If you maintain two versions of a book in the same repository, we recommend using a separate config file for each version. For example, the **upstream.cfg** file might contain the condition **condition: upstream** and the **enterprise.cfg** file might contain the condition **condition: enterprise**. You could then specify the version of the document to build or package with the **--config**; for example, **$ publican package --lang en-US --config upstream.cfg**. Using two separate config files saves you from having to edit the one config file each time you build or package a document.

10. Pre-release software and draft documentation

Completed documentation for pre-release software is not the same thing as draft documentation.

Drafts are unfinished versions of a book or article, and their unfinished state is unrelated to the status of the software they document.

In both circumstances, however, it is important to make the status of the software, documentation or both clear to users, developers, readers and reviewers.

10.1. Denoting pre-release software

Documentation for pre-release software, especially pre-release software being distributed to testers, customers and partners, should carry a clear mark denoting the beta-status of the software.

To create that mark do the following:

1. Add the software's pre-release version number, or equivalent state information, to the **<subtitle>** tag in your **Book_Info.xml** file. Place this additional text in **<remark>** tags. For example:

   ```
   <subtitle>Using Red Hat Enterprise Warp Drive<remark> Version
   1.1, Beta 2</remark></subtitle>
   ```

2. add **show_remarks** to the **publican.cfg** file and set it to '1':

   ```
   show_remarks: 1
   ```

When you build your book with this **<remark>** tag and the **show_remarks** setting in place, the pre-release nature of the software is displayed clearly and unmistakably. PDF builds display the remark on their cover and title pages. HTML builds (both single-page HTML and multiple-page HTML) display the remark near the beginning of **index.html**.

Because this approach makes no changes to the information in **Book_Info.xml** used to generate RPMs, it also ensures there is no ambiguity in the RPM subsystem's operation.

Example 4.7. An example of an inline remark

Here is an example of an inline remark.

Important

It is the writer's responsibility to remove the **<remark>** tag and its contents and remove or turn off **show_remarks** when documentation is updated for use with the release version of the software.

10.2. Denoting draft documentation

Unfinished documentation made available to others for review should be labeled clearly as such.

› To add the draft watermark to your documentation add the **status="draft"** attribute to the **<article>**, **<book>** or **<set>** tag in your document's root node. For example:

```
<book status="draft">
```

By default, your root node is the **<book>** tag in your *Doc_Name*.**xml** file.

If you are working on an article or set, the root node is the **<article>** or **<set>** tag in *Doc_Name*.**xml**.

Adding the **status="draft"** attribute causes each page of the document to show the draft watermark. This is by design.

Even if you change only a portion of a work before sending it out for review, marking every page as draft will encourage reviewers to report errors or typos they spot in passing. It will also ensure non-reviewers who encounter the work do not mistake a draft for a finished version.

Example 4.8. An example of a block marked up as draft

This is an example of a block that is marked as draft

Isn't it pretty!
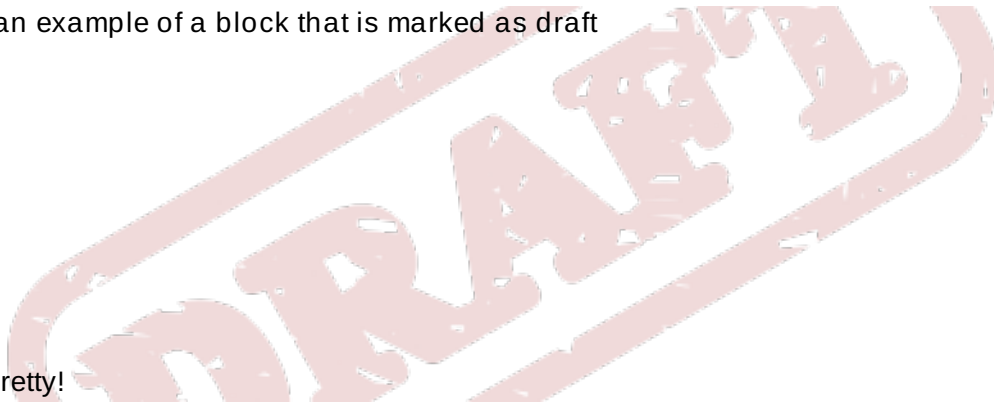
10.3. Denoting draft documentation of pre-release software

To denote unfinished documentation of pre-release software properly, do both previously noted procedures.

10.4. Denoting changed content *New section*

DocBook allows setting the **revisionflag** on many elements to allow easier reviewing on changed documents. **Publican**, as of version 4.1, will add highlighting to these elements if the book is in draft mode. e.g. **revisionflag="added"**

added
> This is how an element that has been added to a new revision is marked-up.

changed
> This is how an element that has been changed in a new revision is marked-up.

deleted

This is how an element that has been marked for deletion from a new revision is marked-up. Publican will not automatically delete or hide this content, you have to ensure this is done before publication.

---

[1] Refer to http://www.section508.gov/

[2] Refer to section 2.4 "Character Data and Markup" in the XML 1.0 standard, available from http://www.w3.org/TR/2008/REC-xml-20081126/.

[3] Refer to http://www.pathname.com/fhs/pub/fhs-2.3.html#USRSHAREARCHITECTUREINDEPENDENTDATA

Chapter 5. Branding

Brands are collections of files that **Publican** uses to apply a consistent look and style to HTML and PDF output. They provide boilerplate text that appears at the beginning of documents, images such as logos, and stylistic elements such as color schemes. **Publican** ships with one brand, **common/**. Documentation projects can produce and distribute brands to their contributors, either as a package (for example, an RPM package) or as an archive (for example, a tarball or ZIP file).

1. Installing a brand

Publican brands for Fedora, Genome, and oVirt documents are available as RPM packages in Fedora. Similarly, Red Hat internally distributes RPM packages containing **Publican** brands for GIMP, JBoss, and Red Hat documents. Providing that you have access to the relevant repositories, you can install these brands on a computer that runs Red Hat Enterprise Linux or Fedora — or an operating system derived from either — with the command **yum install publican-*brand*** or with a graphical package manager such as **PackageKit**.

If you use **Publican** on an operating system that does not use RPM packages, your documentation project might provide its brand in another format. Whatever the format in which the brand is supplied, you must place the brand files in a subdirectory of the **Publican Common_Content** directory. By default, this directory is located at **/usr/share/publican/Common_Content** on Linux operating systems and at **%SystemDrive%/%ProgramFiles%/Publican/Common_Content** on Windows operating systems — typically, **C:/Program Files/Publican/Common_Content**

Each currently available brand is distributed under a brand-specific license as follows:

To install the brand:

1. If the brand was supplied to you in an archive of some kind, for example, a tarball or ZIP file, unpack the brand into a new directory on your system.

2. Change into the directory in which you created or unpacked the brand:

   ```
   $ cd publican-brand
   ```

   where *brand* is the name of the brand.

3. Build the brand:

   ```
   $ publican build --formats xml --langs all --publish
   ```

4. Install the brand:

   ```
   $ sudo publican install_brand --path path
   ```

   where *path* is the path to the **Publican** Common Content files. For example, on a Linux system, run:

   ```
   $ sudo publican install_brand --path
   /usr/share/publican/Common_Content
   ```

or on a Windows system, run

```
$ publican install_brand --path "C:/Program
Files/Publican/Common_Content"
```

Table 5.1. Current Brands and their packages

Brand	License of Common Content files	Default license for documents	Package	Comment
common	CC0 1.0	GFDL Version 1.2	publican	GPL compatible license. No options.
RedHat	CC-BY-SA 3.0	CC-BY-SA 3.0	publican-redhat	
Fedora	CC-BY-SA 3.0	CC-BY-SA 3.0	publican-fedora	
JBoss	CC-BY-SA 3.0	CC-BY-SA 3.0	publican-jboss	No Options.
oVirt	OPL 1.0	OPL 1.0	publican-ovirt	No Options.
GIMP	GFDL Version 1.2	GFDL Version 1.2	publican-gimp	Matches the license for existing GIMP documentation.
Genome	OPL 1.0	OPL 1.0	publican-genome	No Options.

Note the difference in licensing between the common content files provided in the common brand (CC0) and the default license set for books generated with the common brand (GFDL). The CC0 license allows you to redistribute and relicense the files that make up the common brand (including the CSS and image files) to suit your project. **Publican** suggests the GFDL for documentation by default because **Publican** is developed primarily to build documentation for software. The GFDL is compatible with the GPL, which is the most commonly used license for open-source software.

2. Creating a brand

Use the **$ create_brand** action to create a new brand. When you create a new brand, you must give it a name and specify the original language for the brand's XML files. The **--name** option provides the name, and the **--lang** option specifies the language. The complete command is therefore:

```
$ publican create_brand --name=brand --lang=language_code
```

Publican creates a new subdirectory named **publican-*brand***, where *brand* is the brand that you specified with the **--name** option.

For example, to create a brand called **Acme**, which will have its Common Content XML files written originally in American English, run:

```
$ publican create_brand --name=Acme --lang=en-US
```

Publican creates the brand in a subdirectory named **publican-Acme**.

To configure your new brand, search for the word **SETUP** in the default files that **Publican** creates and edit the files to provide the missing details. On Linux operating systems, you can search for the word **SETUP** in these files with the command:

```
$ grep -r 'SETUP' *
```

3. Files in the brand directory

Running the **$ publican create_brand --name=*brand* --lang=*language_code*** command creates a directory structure and the required files. The brand directory initially contains:

» **COPYING**

» **defaults.cfg**

» **overrides.cfg**

» **publican.cfg**

» **publican-*brand*.spec**, where *brand* is the name of the brand.

» **README**

» a subdirectory for the brand's XML files, CSS stylesheets, and default images. The subdirectory is named with the language code of the original language of the brand (for example, **en-US**). These files are:

  ▫ **Feedback.xml**

  ▫ **Legal_Notice.xml**

  ▫ the **css** subdirectory, which contains:

    ▫ **overrides.css**

  ▫ the **images** subdirectory, which contains 43 images in both raster (PNG) and vector (SVG) formats.

3.1. The publican.cfg file

The **publican.cfg** file in a brand serves a similar purpose to the **publican.cfg** file in a document — it configures a number of basic options that define your brand.

version

> specifies the version number for the brand. When you create the brand with **$ publican create_brand**, the version number is set to **0.1**. Update the version number here in the brand **publican.cfg** file and in the **publican-*brand*.spec** file when you prepare a new version of the brand.

Note that this parameter is unrelated to the version number of documents built with this brand. For example, the *Fedora 12 Installation Guide* has its version set as **12** in its **publican.cfg** file, but might be built with version 1.0 of the publican-fedora brand.

xml_lang

specifies the language of the source XML files for the brand's Common Content, for example, **en-US**, as set by the **--lang** option for **$ publican create_brand**.

release

specifies the release number for the brand. When you create the brand with **$ publican create_brand**, the release number is set to **0**. Update the version number here in the brand **publican.cfg** file and in the **publican-*brand*.spec** file when you prepare a new release of an existing version of the brand.

type

when set to **type: brand**, this parameter identifies the contents of this directory as a brand, rather than a book, article, or set.

brand

specifies the name of the brand, as set by the **--name** option for **$ publican create_brand**.

web_cfg

the full path for the **Publican** site configuration file for non standard RPM websites.

web_dir

the full path to where files will be installed. You must also set *wwwdir* in **publican-*brand*.spec**.

web_req

the name of the RPM package that will supply the Publican site config file.

3.2. The defaults.cfg file and overrides.cfg file

Every document built in **Publican** has a **publican.cfg** file in its root directory, which configures build options for the document. Refer to Section 1.1, "The publican.cfg file" for a full description of these options. The **defaults.cfg** file and **overrides.cfg** file in a brand supply default values for any of the parameters that you can otherwise set with a document's **publican.cfg** file.

When you build a document with a particular brand, **Publican** first applies the values in the brand's **defaults.cfg** file before it applies the values in the document's **publican.cfg** file. Values in the document's **publican.cfg** file therefore override those in the brand's **defaults.cfg** file.

Publican next applies the values in the brand's **overrides.cfg** file, which therefore override any values in the brand's **defaults.cfg** file and the document's **publican.cfg** file.

Use the **defaults.cfg** file to set values that you routinely apply to your brand but want to allow writers to change in particular books; use the **overrides.cfg** file for values that you do not want to allow writers to change.

You can add a list of banned tags or attributes using *banned_tags* and *banned_attrs* respectively to either **defaults.cfg** or **overrides.cfg**. These will be listed by the **Publican** action *print_banned*.

3.3. publican-*brand*.spec file

Some Linux operating systems use the **RPM Package Manager** to distribute software, in the form of *RPM packages*. In general terms, an RPM package contains software files compressed into an archive, accompanied by a *spec file* that tells the **RPM Package Manager** how and where to install those files.

When you create a brand, **Publican** generates the outline of an RPM spec file for the brand. The automatically generated spec file provides you with a starting point from which to create an RPM package to distribute your brand. Refer to to learn how to configure the spec file and use it to produce an RPM package.

3.4. README

The **README** file contains a brief description of the brand package.

3.5. COPYING

The **COPYING** file contains details of the copyright license for the package and perhaps the text of the license itself.

3.6. Common Content for the brand

Inside the brand directory is a subdirectory named after the default XML language for brand, as set with the **--lang** option when you created the brand. This subdirectory contains XML and image files that override the default Common Content provided with **Publican**. Customizing these files provides your brand with its distinctive appearance, including its color scheme and logos.

3.6.1. Feedback.xml

The **Feedback.xml** file is included by default in the preface of every book produced in **Publican**. It invites readers to leave feedback about the document. Customize this file with the contact details of your project. If your project uses a bug tracking system such as **Bugzilla**, **JIRA**, or **Trac**, you could include this information here.

3.6.2. Legal_Notice.xml

The **Legal_Notice.xml** file contains the legal notice that appears at the beginning of every document produced by **Publican**. Insert the details of your chosen copyright license into this file. Typically, this might include the name of the license, a short summary of the license, and a link to the full details of the license.

3.7. The **css** subdirectory

The **css** subdirectory contains a single file: **overrides.css**.

3.7.1. overrides.css

The **overrides.css** file sets the visual style for your brand. Values in this file override those in **Publican**'s **Common_Content/common/*xml_lang*/css/common.css** file.

3.8. The images subdirectory

The **images** subdirectory contains 43 images in both *portable network graphics* (PNG) and *scalable vector graphics* (SVG) format. These images are placeholders for various navigation icons, admonition graphics, and brand logos. They include:

image_left

> is a logo for the product to which this document applies. It appears at the top left corner of HTML pages, where it contains a hyperlink to a web page for the product, as defined by *prod_url* in the **publican.cfg** file for the document. Consider setting *prod_url* in the brand's **defaults.cfg** or **overrides.cfg** file.

image_right

> is a logo for the team that produced this documentation. It appears at the top right corner of HTML pages, where it contains a hyperlink to a web page for the documentation team, as defined by *doc_url* in the **publican.cfg** file for the document. If all the documentation for this brand is produced by the same team, consider setting *doc_url* in the brand's **defaults.cfg** or **overrides.cfg** file.

title_logo

> is a larger version of your product logo, which appears on the title page of PDF documents and at the start of HTML documents.

note, important, warning

> are icons that accompany the XML admonitions **<note>**, **<important>**, and **<warning>**.

dot, dot2

> are bullets used for **<listitem>**s in **<itemizedlist>**s.

stock-go-back, stock-go-forward, stock-go-up, stock-home

> are navigation icons for HTML pages.

h1-bg

> is a background for the heading that contains the name of your product, as it appears at the very beginning of a HTML document.

watermark_draft

> is a watermark that appears on pages of draft documentation. Refer to Section 10.2, "Denoting draft documentation".

3.9. The brand_dir option

The **Publican** build option brand_dir allows you to specify the location of brand files. These files do not have to be part of an installed brand.

You can ship custom XSL in a folder named **xsl** in your brand: it sits at the same level as the various language files for your brand. Publican uses any XSL that it finds in that directory to override the XSL templates that we ship in the common brand (which in turn override the XSL templates that the DocBook project ships).

> **Important**
>
> Brands with custom XSLT need to change the relative path of referencing XSL templates to a URI.

4. Packaging a brand

> **Packages other than RPM packages**
>
> This section discusses packaging documents for distribution through the **RPM Package Manager**. However, when you use the **$ publican package** command, **Publican** generates a tarball that you can use to build a package to distribute through different package manager software. If you run **publican package** on a computer on which **rpmbuild** is not installed, **Publican** still generates the tarball, even though it cannot then generate an RPM package from that tarball.

After you create a brand (as described in Section 2, "Creating a brand"), **Publican** can help you to distribute the brand to members of your documentation project as *RPM packages*. RPM packages are used to distribute software to computers with Linux operating systems that use the **RPM Package Manager**. These operating systems include Red Hat Enterprise Linux, Fedora, Mandriva Linux, SUSE Linux Enterprise, openSUSE, Turbolinux, and Yellow Dog Linux, to name just a few.

Publican can produce both *source RPM packages* (*SRPM packages*) and *binary RPM packages*. As part of this process, it also creates the *spec file* — the file that contains the details of how a package is configured and installed.

SRPM packages contain the source code used to generate software rather than the software itself. To use an SRPM package, a computer must *compile* the source code into software. SRPM packages of **Publican** brands contain the configuration files, XML files, and image files that define the brand in its original language, plus the PO files that generate the Common Content files in translated languages. You cannot install documentation directly from SRPM packages with current versions of the **RPM Package Manager**.

Conversely, binary RPM packages contain software — in this case, a **Publican** brand — that is ready to copy to a location in the computer's file system and use immediately. The contents of the binary RPM package do not need to be compiled by the computer onto which they are installed, and therefore, the computer does not need to have **Publican** installed.

To package a brand, use the **$ publican package** command in the brand directory. When used without any further options, **Publican** produces an SRPM package. The options for packaging a brand are as follows:

--binary

    specifies that **Publican** should build the package as a binary RPM package.

--brew

specifies that **Publican** should push the completed package to **Brew**. **Brew** is the build system used internally by Red Hat; this option is meaningless outside Red Hat.

--scratch

when used together with the **--brew** option, specifies that a SRPM package should be built as a *scratch build* when sent to **Brew**. Scratch builds are used to verify that a SRPM package is structured correctly, without updating the package database to use the resulting package.

The **--lang**, **--desktop** and **--short_sighted** options that apply when you package books (described in Section 8, "Packaging a document") are meaningless when you package brands. In particular, note that although the **--lang** option is mandatory when you package a book, you do not need to use it when you package a brand.

By default, **Publican** brand packages are named:

publican-*brand-version-release*.*build_target*.noarch.*file_extension*.

Publican uses the information in the **publican.cfg** file to supply the various parameters in the file name. Refer to Section 3.1, "The publican.cfg file" for details of configuring this file. Additionally:

≫ SRPM packages have the file extension **.src.rpm** but binary RPM packages have the file extension **.rpm**

≫ binary RPM packages include **build_target.noarch** before the file extension, where *[build_target]* represents the operating system and version that the package is built for as set by the **os_ver** parameter in the **publican.cfg** file. The **noarch** element specifies that the package can be installed on any system, regardless of the system architecture.

Chapter 6. Using sets

A *set* is a collection of books, published as a single output. The *Services Plan* for example is a set comprised of many books such as the *Developer Guide*, *Engineering Content Services Guide* and the *Engineering Operations Guide* to name just a few. The **$ create_book** command creates a template for a set by setting the **type** parameter to **Set**.

There are two types of set:

- *stand-alone sets*

- *distributed sets*

1. Stand-alone sets

A stand-alone set contains the XML files for each book, all of which are located inside the directory of the set. Stand-alone sets are always built as a set; you cannot build the individual books on their own without modification.

The procedure that follows will guide you through the process of creating a stand-alone set named *My Set* located in a directory called **books/My_Set/**. The set will contain *Book A* and *Book B* both of which will be manually created inside the **books/My_Set/en-US** directory.

Procedure 6.1. Creating a stand-alone set

1. Run the following command in a shell in the **books/** directory to create a set named **My_Set** branded in the Red Hat style and in which the XML will be written in American English.

   ```
   publican create --type=Set --name=My_Set --brand=RedHat --
   lang=en-US
   ```

2. **$ cd** into the **My_Set/en-US** directory and create two *directories* (not books) called **Book_A** and **Book_B**.

   ```
   $ cd My_Set/en-US
   $ mkdir Book_A Book_B
   ```

3. **$ cd** into the **books/My_Set/en-US/Book_A** directory. Create and edit the **Book_A.xml**, **Book_Info.xml**, and any other xml files required for your book such as those required for individual chapters. Ensure that **Book_A.xml** contains the correct **xi:include** references to all of your xml files in the directory. For example, if *Book A* contained **Book_Info.xml** and **Chapter_1.xml**, the **Book_A.xml** file would look like this:

   ```
   <?xml version='1.0'?>
   <!DOCTYPE book PUBLIC "-//OASIS//DTD DocBook XML V4.5//EN"
   "http://www.oasis-open.org/docbook/xml/4.5/docbookx.dtd" [
   ]>

   <book>
       <xi:include href="Book_Info.xml"
   ```

```
xmlns:xi="http://www.w3.org/2001/XInclude"></xi:include>
    <xi:include href="Chapter_1.xml"
xmlns:xi="http://www.w3.org/2001/XInclude"></xi:include>
</book>
```

4. Use the same process for *Book_B*, located in the **books/My_Set/en-US/Book_B** directory, as per the step above.

5. Open the **books/My_Set/en-US/My_Set.xml** file in an editor. For each book in the set, add an **xi:include** reference to the primary xml file from the book. The primary xml file for *Book A* will be **Book_A.xml** and for *Book B*, **Book_B.xml**. The **My_Set.xml** file should now look like this:

```
<?xml version="1.0"?>
<!DOCTYPE set PUBLIC "-//OASIS//DTD DocBook XML V4.5//EN"
"http://www.oasis-open.org/docbook/xml/4.5/docbookx.dtd" [
]>

<set>
 <xi:include href="Set_Info.xml"
xmlns:xi="http://www.w3.org/2001/XInclude" />
 <xi:include href="Preface.xml"
xmlns:xi="http://www.w3.org/2001/XInclude" />
 <xi:include href="Book_A/Book_A.xml"
xmlns:xi="http://www.w3.org/2001/XInclude" />
 <xi:include href="Book_B/Book_B.xml"
xmlns:xi="http://www.w3.org/2001/XInclude" />
 <xi:include href="Revision_History.xml"
xmlns:xi="http://www.w3.org/2001/XInclude" />
</set>
```

6. To make your set XML valid, you will need to change the following:

   a. In **My_Set.xml**, comment out the following lines:

   ```
   <remark>NOTE: the href does not contain a language! This
   is CORRECT!</remark>
   <remark><xi:include href="My_Other_Book/My_Other_Book.xml"
   xmlns:xi="http://www.w3.org/2001/XInclude"></remark>
   <setindex></setindex>
   ```

   b. In the **Preface.xml** and **Book_Info.xml** for each book you are using, add ../../ to the front of every Common_Content string you see. For example:

   ```
   <xi:include href="Common_Content/Conventions.xml"
   xmlns:xi="http://www.w3.org/2001/XInclude" />
   ```

   This will need to become:

   ```
   <xi:include href="../../Common_Content/Conventions.xml"
   xmlns:xi="http://www.w3.org/2001/XInclude" />
   ```

This is because in a standalone set, the Common Content folder is two
directories further away from where Publican usually looks for it, so it has to
be told manually. To build your book individually, without building the entire
set, undo this step.

7. Test your set by running the **publican build --formats=test --langs=en-
US** command.

If you are using pre-existing books, you will need to rearrange them so the XML files are at
the level of the set and all images are inside the images directory at the same level. For
example:

```
-- My_Set
 |-- en-US
 |    |-- Author_Group.xml
 |    |-- Book_A.ent
 |    |-- Book_A.xml
 |    |-- Book_B.ent
 |    |-- Book_B.xml
 |    |-- Book_Info_A.xml
 |    |-- Book_Info_B.xml
 |    |-- chapter_A.xml
 |    |-- chapter_B.xml
 |    |-- images
 |    |    |-- icon.svg
 |    |    `-- image1.png
 |    |-- My_Set.ent
 |    |-- My_Set.xml
 |    |-- Preface.xml
 |    |-- Revision_History.xml
 |    `-- Set_Info.xml
 `-- publican.cfg
```

The XML files can also be within sub-folders to keep them separate. This is true within the
images directory, as well. For example:

```
-- My_Set
 |-- en-US
 |    |-- Author_Group.xml
 |    |-- Book_A
 |    |    |-- Book_A.ent
 |    |    |-- Book_A.xml
 |    |    |-- Book_Info.xml
 |    |    `-- chapter.xml
 |    |-- Book_B
 |    |    |-- Book_B.ent
 |    |    |-- Book_B.xml
 |    |    |-- Book_Info.xml
 |    |    `-- chapter.xml
 |    |-- images
 |    |    |-- icon.svg
 |    |    `-- image1.png
 |    |-- My_Set.ent
 |    |-- My_Set.xml
```

```
|    |-- Preface.xml
|    |-- Revision_History.xml
|    `-- Set_Info.xml
`-- publican.cfg
```

2. Distributed sets

A *distributed set* contains books that are located in a version-controlled repository. Although several version control systems exist, this version of **Publican** supports only one: **Subversion** (**SVN**). By setting the repository location and titles of the included books in the **publican.cfg** file, each book can be exported to build the entire set. The procedure that follows will guide you through the process of creating a set named *My Set* containing *Book A* and *Book B*.

> **Important**
>
> The following procedure assumes that *Book A* and *Book B* already exist and are available in your **SVN** repository. Currently **Publican** only supports **SVN**.

Procedure 6.2. Creating a set

1. Run the following command in a shell to create a set named **My_Set** branded in the Red Hat style and in which the XML will be written in American English.

   ```
   $ publican create --type=Set --name=My_Set --brand=RedHat  --
   lang=en-US
   ```

2. Add the following lines to the **publican.cfg** file:

   ```
   books: Book_A Book_B
   repo: http://PATH-TO-YOUR-SVN-REPOSITORY
   scm: SVN
   ```

   Your repository path should end in the directory before the book you need.

3. Open the **My_Set.xml** file in an editor. For each book in the set, add an **xi:include** reference to the primary XML file from the book. The primary XML file for *Book A* will be **Book_A.xml** and for *Book B*, **Book_B.xml**. The **My_Set.xml** file should now look like this:

   ```
   <?xml version="1.0"?>
   <!DOCTYPE set PUBLIC "-//OASIS//DTD DocBook XML V4.5//EN"
   "http://www.oasis-open.org/docbook/xml/4.5/docbookx.dtd" [
   ]>

   <set>
    <xi:include href="Set_Info.xml"
   xmlns:xi="http://www.w3.org/2001/XInclude" />
    <xi:include href="Preface.xml"
   xmlns:xi="http://www.w3.org/2001/XInclude" />
    <xi:include href="Book_A/Book_A.xml"
   xmlns:xi="http://www.w3.org/2001/XInclude" />
    <xi:include href="Book_B/Book_B.xml"
   ```

```
xmlns:xi="http://www.w3.org/2001/XInclude" />
 <xi:include href="Revision_History.xml"
xmlns:xi="http://www.w3.org/2001/XInclude" />
</set>
```

4. To make your set XML valid, you will need to comment out the following lines in **My_Set.xml**

```
<remark>NOTE: the href does not contain a language! This is
CORRECT!</remark>
<remark><xi:include href="My_Other_Book/My_Other_Book.xml"
xmlns:xi="http://www.w3.org/2001/XInclude"></remark>
<setindex></setindex>
```

5. Test your set by running the **publican build --formats=test --langs=en-US** command.

> **Important**
>
> When building a set, the **publican clean_ids** command will be run over each book because of the constraint that IDs must be unique across all books. Be careful of creating IDs that rely on content that may not be available when building books independently of the set.

Chapter 7. Building a website with Publican

Publican not only builds documents for publication but can build and manage a documentation website as well. For a suite of documents that you maintain by yourself, you can use **Publican** to build a site on your local system; you can then upload the site to a webserver by whatever means you choose. This approach does not scale well, however, so for team-based documentation projects, **Publican** can generate RPM packages of documentation to install on the webserver. To install **Publican**-generated RPM packages on a webserver, **Publican** (version 2.1 or higher) and **rpm** must be installed on the server. If you build and maintain the website on a workstation and upload it to a webserver for publication, **Publican** and **rpm** do not need to be installed on the webserver.

The websites that **Publican** creates consist of four parts: the website structure, a home page, product and version description pages, and the documents published on the site. The website structure itself consists of:

- a configuration file.

- an SQLite database file.

- a subdirectory for the published documents, which contains:

  - **index.html** — an index page that redirects to localized versions of a home page for the site.

  - **interactive.css** — a CSS stylesheet that contains styles for the navigation menu.

  - **opds.xml** — an Open Publication Distribution System (OPDS) catalog to allow compliant eBook readers to find EPUB documents on your site easily.

  - **Sitemap** — A Sitemap is a list of the URLs from your website and metadata about them, like update history, change frequency, and importance relative to other URLs in the site. A Sitemap can be supplied to many major search engines, where it is used to help their crawlers index your site more intelligently. A Sitemap does not guarantee that your site will be ranked higher in search results. However, it does help search engines to return the most relevant results from your website in response to user queries. For more information on Sitemaps, visit sitemaps.org.

  - **site_overrides.css** — a CSS stylesheet that overrides the styles contained in **interactive.css** to provide site-specific styles. This file is not created by the site creation process, but must be added manually later, or supplied by the site *home page*.

  - **default.js** — a JavaScript script that directs visitors to localized content based on the locale set in their browser and which controls the presentation of the navigation menu.

  - subdirectories for each language in which you publish. Initially, this contains **opds.xml** and **toc.html**. Later it also contains **opds-*product*.xml**:

    - **opds.xml** — an OPDS catalog of EPUB documents in this language.

    - **opds-*product*.xml** — an OPDS catalog of EPUB documents for each product for which you publish documentation in this language. Within each product catalog, documentation is divided into **<category>**s for different versions of the same product.

    - **toc.html** — the table of contents for that language, initially without links to any documents.

- A subdirectory for each product for which you publish documentation in this language.

Optionally, the site structure might also include a *dump file* — an XML file that provides complete site content details for delivery of other services, such as web feeds or customised search pages. The site structure might also contain a zipped version of the dump file. Refer to Section 1, "Building a website manually" and Section 2, "Building a website using RPM packages" for details of creating a dump file, and to Appendix D, *Contents of the website dump file* for a description of the dump file contents.

1. Building a website manually

1.1. Creating the website structure

To build the website structure:

1. On your workstation, create a new directory and change into it. For example, on a Linux system, run:

   ```
   $ mkdir ~/docsite
   $ cd ~/docsite
   ```

2. Run **publican create_site**, specifying the following parameters:

   - **--site_config** — the name of the configuration file for your site, with the filename extension **.cfg**

   - **--db_file** — the name of the SQLite database file for your site, with the filename extension **.db**

   - **--toc_path** — the path to the directory in which you will place your documents

   On a computer with an operating system other than Linux, also set:

   - **--tmpl_path** — the path to the **templates/** directory of your **Publican** installation. On computers with Windows operating systems, this is typically *%SystemDrive%\%ProgramFiles%***Publican\templates**.

   For example:

   ```
   $ publican create_site --site_config foomaster.cfg --db_file
   foomaster.db --toc_path html/docs
   ```

   You might give names to the site configuration file and database file that help you to recognize the site to which they belong. For example, for the **FooMaster** documentation site, you might call these files **foomaster.cfg** and **foomaster.db**. You can set *--toc_path* to whatever you choose.

3. Edit the site configuration file to specify the name of the site, the web host, and optionally, search parameters, default language, dump file settings, and update settings for the site:

   a. Specify the title with the *title* parameter, for example:

      ```
      title: "Foomaster Documentation"
      ```

Normally, visitors to your website do not see this title because the site's JavaScript redirects them to a homepage. However, this title is likely to be found and indexed by search engines.

b. Specify the web host with the *host* parameter as a full URL, including the protocol (for example, **http://**). For example:

```
host: http://docs.example.com
```

Publican uses the value set for *host* to construct the URLs in the XML **Sitemap** that it creates for search engine crawlers, and to limit searches submitted through the search box in the navigation menu to results on your site only.

c. Optionally, construct a search engine query to use with the search box in the navigation menu and specify the entire content of a HTML **<form>** with the *search* parameter. If you do not specify a custom web search, **Publican** creates a Google search limited to the host that you specified in the *host* parameter.

For example, to construct a Yahoo! search limited to **docs.example.com**, set:

```
search: '<form target="_top" method="get"
action="http://search.yahoo.com/search"> <div
class="search"> <input type="text" name="p" value="" />
<input type="hidden" name="vs" value="docs.example.com" />
<input type="submit" value="###Search###" /> </div>
</form>'
```

Refer to the documentation of your chosen search engine for details of how to construct custom searches.

If you set **value="###Search###"** in the code for a submit button, **Publican** uses the word **Search** on the button, localized into any language that **Publican** supports.

> **Important — the search parameter is not validated**
>
> **Publican** does not validate the *search* parameter, but builds the value of this parameter into the navigation menu exactly as you specify it. Be especially careful when you use this feature.

d. Optionally, set the default language of the website. **Publican** creates a separate, translatable navigation menu for each language in which you publish documentation. However, if a document is not available in a particular language, **Publican** links visitors to the untranslated version of that document. To specify the default, untranslated language for the site, set *def_lang* with a language code. For example:

```
def_lang: fr-FR
```

With *def_lang* set to **fr-FR**, visitors viewing the navigation menu in (for example) Spanish are presented with a link to the original French version of the document if the document has not yet been translated into Spanish.

e. Optionally, configure a *dump file* for the website. **Publican** can output an XML file that provides complete site content details for delivery of other services, such as web feeds or customised search pages. The file is updated whenever a book is installed or removed from the site, or the **$ publican update_site** command is run. Configure the *dump*, *dump_file*, and *zip_dump* parameters as follows:

dump

> Set **dump: 1** to enable the dump file function. This parameter defaults to **0** (off).

dump_file

> Set **dump_file: *name*** to specify the name of the dump file and the directory in which **Publican** stores it. This parameter defaults to **/var/www/html/DUMP.xml**.

zip_dump

> Set **zip_dump: 1** to specify that **Publican** should create a zipped version of the XML file together with the XML version. This parameter defaults to **0** (off).

Refer to Appendix D, *Contents of the website dump file* for a description of the contents of the dump file.

f. Optionally, specify the web style with the *web_style*.

web_style: 1

> The website resembles those produced by Publican 2, with a list of products displayed in a navigation pane at the left of the page. (Default)

web_style: 2

> The website includes a breadcrumb-like navigation bar across the top of the documentation.

> **Important**
>
> The web style set for your site must match the web style set for your content. For example, if you set **web_style: 2** for your website, you need to have **web_style: 2** set in each of the books that you want to install on the site. Consider setting this parameter in the **defaults.cfg** or **overrides.cfg** files of the brands that you intend to use with this site.

g. Optionally, specify that the site tables of contents will be updated manually with the *manual_toc_update* parameter, for example:

```
manual_toc_update: 1
```

Normally, **Publican** updates the site's tables of contents every time a documentation package is added or removed. On a site with a large number of documents on it (more than a few hundred), or where documents are

updated very frequently (dozens of updates per week), this process is very demanding on a server. On a large or busy site, we recommend that you set this parameter and then periodically update the tables of contents with the **$ publican update_site** command.

h. Optionally, override the default JavaScript for the site with the *toc_js* parameter, for example:

```
toc_js: "mybrand/scripts/megafoo.js"
```

This file will be symlinked as *toc_path*/toc.js with the **$ publican update_site** command. This path should be relative to the *toc_path* parameter.

4. Create an empty file named **site_overrides.css** in the directory that you specified with **doc_path** (the directory that contains **interactive.css** and the various language directories). If you want to use site-specific styles to override those provided by **interactive.css**, you can add a **site_overrides.css** to the document that provides the site *home page* — refer to Section 1.2, "Creating, installing, and updating the home page". If you do not want to use site-specific styles, the empty file you add here will prevent 404 errors on your server. On a Linux system, change into the directory that you specified with **doc_path** and run:

```
$ touch site_overrides.css
```

5. Build and install each brand, including the **Publican common** brand.

a. Change into the directory that holds the source for the brand.

```
$ cd brandsrc_dir
```

b. Build the brand.

```
$ publican build --formats=xml --langs=all --publish
```

c. Install the brand on your website.

```
$ publican install_brand --web --
path=path_to_site_root_dir
```

Perform these steps for all brands.

6. Update the site.

```
$ publican update_site
```

To make **Publican** refresh the site structure at any time, run:

```
$ publican update_site --site_config
path_to_site_configuration_file.cfg
```

1.2. Creating, installing, and updating the home page

The **Publican**-generated home page is the localizable page to which visitors are directed by

the site JavaScript and which provides the style for the website structure. The home page is structured as a DocBook **<article>** with an extra *web_type: home* parameter in its **publican.cfg** file. In its structure and its presentation, the home page is the same as any other article that you produce with **Publican**. To create the home page:

1. Change into a convenient directory and run the following **$ publican create** command:

   ```
   $ publican create --type Article --name page_name
   ```

   For example:

   ```
   $ publican create --type Article --name Home_Page
   ```

   Most brands (including the **common** brand) present the name of the document in large, coloured letters close to the top of the page, underneath the banner that contains the product name (the **--name** option sets the **<title>** tag). Therefore, by default, the value that you set with the **--name** option is presented prominently to visitors to your site; in the above example, visitors are greeted with the words **Home Page** underneath the product banner.

2. Change into the article directory:

   ```
   $ cd page_name
   ```

   For example:

   ```
   $ cd Home_Page
   ```

3. Unlink the **Article_Info.xml** file from your root XML file.

   Little of the content of the **Article_Info.xml** file is likely to be useful for the home page of your website. Therefore, edit the root XML file of your home page to remove the **<xi:include>** tag that links to **Article_Info.xml**. **Publican** still uses the information in **Article_Info.xml** for packaging, but does not include it on the page itself.

4. Edit the **publican.cfg** file.

   At the very least, you must add the *web_type* parameter and set it to **home**:

   ```
   web_type: home
   ```

   The *web_type: home* parameter instructs **Publican** to process this document differently from product documentation. This is the only mandatory change to the **publican.cfg** file. Other optional changes to the **publican.cfg** file that are frequently useful for **Publican**-generated websites include:

   brand

   To style your home page to match your documents, add:

   ```
   brand: name_of_brand
   ```

   docname, *product*

If the **<title>** or the **<product>** that you set in the **Article_Info** file included anything other than basic, unaccented Latin characters, set the *docname* and *product* as necessary.

5. Edit the content of the *page_name.***xml** file (for example, **Home_Page.xml**) as you would any other DocBook document.

   If you remove the **<xi:include>** that links to **Article_Info.xml**, specify a title for your page in the following format:

   ```
   <title role="producttitle">FooMaster Documentation</title>
   ```

6. If you publish documentation in more than one language, create a set of POT files and a set of PO files for each language with the **$ publican update_pot** and **publican update_po** commands.

7. To customize the logo at the top of the navigation menu that provides a link back to the home page, create a PNG image 290 px × 100 px and name it **web_logo.png**. Place this image in the **images/** directory in the document's XML directory, for example **en-US/images/**.

8. To specify site-specific styles to override the styles set in the website's **interactive.css** file, add styles to a file named **site_overrides.css** and place it in the root of your document source (the same directory that contains **publican.cfg** and the language directories).

9. Build the home page in single-page HTML format with the **--embedtoc** option and install it in your website structure. For example:

   ```
   $ publican build --publish --formats html-single --embedtoc --
   langs all
   $ publican install_book --site_config ~/docsite/foomaster.cfg
   --lang Language_Code
   ```

   Note that you can build all languages at the same time, but must install the home page for each language with a separate **$ publican install_book** command.

1.3. Creating, installing, and updating product pages and version pages

Publican-generated product pages and version pages are the localizable pages that provide a general overview of a product or version respectively. Visitors access these pages by clicking on a product or version in the navigation menu. The pages are structured as DocBook **<article>**s with an extra *web_type: product* or *web_type: version* parameter in their **publican.cfg** files. In their structure and presentation, product pages and version pages are the same as any other article that you produce with **Publican**. To create a product page or version page:

1. Change into a convenient directory and run the following **$ publican create** command:

   ```
   $ publican create --type Article --name page_name
   ```

   For example, a product page might be:

```
$ publican create --type Article --name FooMaster
```

or a version page might be:

```
$ publican create --type Article --name FooMaster_3
```

2. Change into the article directory:

```
$ cd page_name
```

For example:

```
$ cd FooMaster
```

3. Unlink the **Article_Info.xml** file from your root XML file.

   Little of the content of the **Article_Info.xml** file is likely to be useful for product pages or version pages. Therefore, edit the root XML file of your page to remove the **<xi:include>** tag that links to **Article_Info.xml**. **Publican** still uses the information in **Article_Info.xml** for packaging, but does not include it on the page itself.

4. Edit the **publican.cfg** file.

   At the very least, you must add the *web_type* parameter and set it to **product** or **version**:

```
web_type: product
```

   or

```
web_type: version
```

   The *web_type* parameter instructs **Publican** to process this document differently from product documentation. This is the only mandatory change to the **publican.cfg** file. Other optional changes to the **publican.cfg** file that are frequently useful for product pages or version pages include:

   brand

   > To style your home page to match your documents, add:

```
brand: name_of_brand
```

   docname, *product*

   > If the **<title>** or the **<product>** that you set in the **Article_Info** file included anything other than basic, unaccented Latin characters, set the *docname* and *product* as necessary.

5. Edit the content of the *page_name*.**xml** file (for example, **FooMaster.xml**) as you would any other DocBook document.

   If you remove the **<xi:include>** that links to **Article_Info.xml**, specify a title for your page in the following format:

```
<title role="producttitle">FooMaster Documentation</title>
```

6. If you publish documentation in more than one language, create a set of POT files and a set of PO files for each language with the **$ publican update_pot** and **publican update_po** commands.

7. Build the product page or version page in single-page HTML format with the **--embedtoc** option and install it in your website structure. For example:

```
$ publican build --publish --formats html-single --embedtoc --
langs all
$ publican install_book --site_config ~/docsite/foomaster.cfg
--lang Language_Code
```

Note that you can build all languages at the same time, but must install the product page or version page for each language with a separate **$ publican install_book** command.

1.4. Installing, updating, and removing documents

To install a document on a website that you are building manually, change into the directory that contains the source for the document and run:

```
$ publican build --embedtoc --formats=list_of_formats --
langs=language_codes --publish
$ publican install_book --site_config
path_to_site_configuration_file.cfg --lang language_code
```

Note that you can run a single **$ publican build** command for all languages that you want to publish, but must run a separate **publican install_book** for each language. You must include **html** as one of the formats in the **publican build** command; optionally, include any or all of the following formats in a comma-separated list: **html-single**, **pdf**, and **epub**.

To update a document, change into the directory that contains the updated source for the document and run the same commands as if you were installing the document for the first time. **Publican** replaces the old version with the new version.

To remove a document, change into the directory that contains the source for the document and run:

```
$ publican remove_book --site_config
path_to_site_configuration_file.cfg --lang language_code
```

When you have installed the documents, the website is ready to upload to your webserver by whatever process you usually use, for example **scp**, **rsync**, or an FTP client.

2. Building a website using RPM packages

2.1. Creating the website structure

> **Warning — This procedure replaces files**
>
> When you create the website structure, **Publican** places files in the
> **/var/www/html/docs** directory. Existing files in this directory might be overwritten by
> this procedure.

Perform the following steps on your webserver.

1. Log into the webserver.

2. Install **Publican** and its web components package. For example, on a webserver
   with a Fedora operating system, run:

   ```
   $ sudo yum install publican publican-common-web
   ```

3. With root privileges, edit the **/etc/publican-website.cfg** file to specify the
   name of the site, the web host, and optionally, search parameters, default language,
   dump file settings, and web style for the site:

   a. Specify the title with the *title* parameter, for example:

      ```
      title: "Foomaster Documentation"
      ```

      Normally, visitors to your website do not see this title because the site's
      JavaScript redirects them to a homepage. However, this title is likely to be
      found and indexed by search engines.

   b. Specify the web host with the *host* parameter as a full URL, including the
      protocol (for example, **http://**). For example:

      ```
      host: http://docs.example.com
      ```

      Publican uses the value set for *host* to construct the URLs in the XML
      Sitemap that it creates for search engine crawlers, and to limit searches
      submitted through the search box in the navigation menu to results on your
      site only.

   c. Optionally, construct a search engine query to use with the search box in the
      navigation menu and specify the entire content of a HTML **<form>** with the
      search parameter. If you do not specify a custom web search, **Publican**
      creates a Google search limited to the host that you specified in the *host*
      parameter.

      For example, to construct a Yahoo! search limited to **docs.example.com**,
      set:

      ```
      search: '<form target="_top" method="get"
      action="http://search.yahoo.com/search"> <div
      class="search"> <input type="text" name="p" value="" />
      <input type="hidden" name="vs" value="docs.example.com" />
      <input type="submit" value="###Search###" /> </div>
      </form>'
      ```

      Refer to the documentation of your chosen search engine for details of how to
      construct custom searches.

If you set **value="###Search###"** in the code for a submit button, **Publican** uses the word **Search** on the button, localized into any language that **Publican** supports.

> **Important — the search parameter is not validated**
>
> **Publican** does not validate the *search* parameter, but builds the value of this parameter into the navigation menu exactly as you specify it. Be especially careful when you use this feature.

d. Optionally, set the default language of the website. **Publican** creates a separate, translatable navigation menu for each language in which you publish documentation. However, if a document is not available in a particular language, **Publican** links visitors to the untranslated version of that document. To specify the default, untranslated language for the site, set *def_lang* with a language code. For example:

```
def_lang: fr-FR
```

With *def_lang* set to **fr-FR**, visitors viewing the navigation menu in (for example) Spanish are presented with a link to the original French version of the document if the document has not yet been translated into Spanish.

e. Optionally, configure a *dump file* for the website. **Publican** can output an XML file that provides complete site content details for delivery of other services, such as web feeds or customised search pages. The file is updated whenever a book is installed or removed from the site, or the **$ publican update_site** command is run. Configure the *dump*, *dump_file*, and *zip_dump* parameters as follows:

dump

> Set **dump: 1** to enable the dump file function. This parameter defaults to **0** (off).

dump_file

> Set **dump_file:** *name* to specify the name of the dump file and the directory in which **Publican** stores it. This parameter defaults to **/var/www/html/DUMP.xml**.

zip_dump

> Set **zip_dump: 1** to specify that **Publican** should create a zipped version of the XML file together with the XML version. This parameter defaults to **0** (off).

Refer to Appendix D, *Contents of the website dump file* for a description of the contents of the dump file.

f. Optionally, specify the web style with the *web_style*.

web_style:1

> The website resembles those produced by Publican 2, with a list of products displayed in a navigation pane at the left of the page. (Default)

web_style: 2

> The website includes a breadcrumb-like navigation bar across the top of the documentation.

> **Important**
>
> The web style set for your site must match the web style set for your content. For example, if you set **web_style: 2** for your website, you need to have **web_style: 2** set in each of the books that you want to install on the site. Consider setting this parameter in the **defaults.cfg** or **overrides.cfg** files of the brands that you intend to use with this site.

g. Optionally, specify that the site tables of contents will be updated manually with the *manual_toc_update* parameter, for example:

```
manual_toc_update: 1
```

Normally, **Publican** updates the site's tables of contents every time a documentation package is added or removed. On a site with a large number of documents on it (more than a few hundred), or where documents are updated very frequently (dozens of updates per week), this process is very demanding on a server. On a large or busy site, we recommend that you set this parameter and then periodically update the tables of contents with the **$ publican update_site** command.

h. Optionally, override the default JavaScript for the site with the *toc_js* parameter, for example:

```
toc_js: "mybrand/scripts/megafoo.js"
```

This file will be symlinked as *toc_path*/toc.js with the **$ publican update_site** command. This path should be relative to the *toc_path* parameter.

4. Create an empty file named **site_overrides.css**. If you want to use site-specific styles to override those provided by **interactive.css**, you can add a **site_overrides.css** to the document that provides the site *home page* — refer to Section 1.2, "Creating, installing, and updating the home page". If you do not want to use site-specific styles, the empty file you add here will prevent 404 errors on your server. On a Linux system, run:

```
# touch /var/www/html/docs/site_overrides.css
```

To make **Publican** refresh the site structure at any time, run:

```
$ publican update_site
```

2.2. Creating, installing, and updating the home page

The **Publican**-generated home page is the localizable page to which visitors are directed by the site JavaScript and which provides the style for the website structure. The home page is structured as a DocBook **<article>** with an extra *web_type: home* parameter in its

publican.cfg file. In its structure and its presentation, the home page is the same as any other article that you produce with **Publican** and is packaged the same way.

1. On a workstation, create a home page using the procedure described in Section 1.2, "Creating, installing, and updating the home page".

2. In the directory in which you created the home page, run:

```
$ publican package --binary
```

    Publican builds an RPM package and places it in the **/tmp/rpms/noarch/** directory of the home page. By default, **Publican** builds the RPM package for the operating system within which you are running **Publican**. To build an RPM package to install on a server that runs a different operating system, set the *os_ver* parameter in the home page's **publican.cfg** file.

3. Either upload the home page package to the webserver and install it with the **rpm -i** or **yum localinstall** command, or place the package in a repository and configure the webserver to install from that repository when you run **yum install**.

To update the home page, build a new package with a higher **<edition>** number or **<pubsnumber>** in the **Article_Info.xml**. **Publican** uses these values to set the version and release numbers for the RPM package. When you install this package on your webserver, **yum** can replace the old version with the new when you run **yum localinstall** for a local package, or **yum update** for a package fetched from a repository.

2.3. Creating, installing, and updating product pages and version pages

Publican-generated product pages and version pages are the localizable pages that provide a general overview of a product or version respectively. Visitors access these pages by clicking on a product or version in the navigation menu. The pages are structured as DocBook **<article>**s with an extra *web_type: product* or *web_type: version* parameter in their **publican.cfg** files. In their structure and presentation, product pages and version pages are the same as any other article that you produce with **Publican** and are packaged the same way.

1. On a workstation, create a product or version page using the procedure described in Section 1.3, "Creating, installing, and updating product pages and version pages".

2. In the directory in which you created the product page or version page, run:

```
$ publican package --binary
```

    Publican builds an RPM package and places it in the **/tmp/rpms/noarch/** directory of the product page or version page. By default, **Publican** builds the RPM package for the operating system within which you are running **Publican**. To build an RPM package to install on a server that runs a different operating system, set the *os_ver* parameter in the **publican.cfg** file of the product page or version page.

3. Either upload the package to the webserver and install it with the **rpm -i** or **yum localinstall** command, or place the package in a repository and configure the webserver to install from that repository when you run **yum install**.

To update the product page or version page, build a new package with a higher **<edition>** number or **<pubsnumber>** in the **Article_Info.xml**. **Publican** uses these values to set the version and release numbers for the RPM package. When you install this package on your webserver, **yum** can replace the old version with the new when you run **yum localinstall** for a local package, or **yum update** for a package fetched from a repository.

2.4. Installing, updating and removing documents

On your workstation, change into the directory that contains the source for the document and run:

```
$ publican package --binary --lang language_code
```

Publican builds an RPM package and places it in the **/tmp/rpms/noarch/** directory of the document. By default, **Publican** builds the RPM package for the operating system within which you are running **Publican**. To build an RPM package to install on a server that runs a different operating system, set the *os_ver* parameter in the document's **publican.cfg** file.

Either upload the document packages to the webserver and install them with the **rpm -i** or **yum localinstall** command, or place the packages in a repository and configure the webserver to install from that repository when you run **yum install**.

To update a document, build a new package with a higher **<edition>** number or **<pubsnumber>** in the **Book_Info.xml** or **Article_Info.xml**. **Publican** uses these values to set the version and release numbers for the RPM package. When you install this package on your webserver, **yum** can replace the old version with the new when you run **yum localinstall** for a local package, or **yum update** for a package fetched from a repository.

Remove a document from the webserver with the **rpm -e** or **yum erase** command.

On large or busy sites, we recommend that you set the *manual_toc_update* parameter in the site's configuration file. With this parameter set, you must run the **$ publican update_site** command after installing, updating, or removing documents. Refer to Section 1.1, "Creating the website structure" for more information.

3. Submitting Your Sitemap to Search Engines

A Publican website includes an XML Sitemap file. The Sitemap can be submitted to many major search engines, in order to help them index your website more intelligently and thoroughly. Each search engine has its own submission procedure. This section includes documentation on how to submit a Sitemap to Google and Bing.

3.1. Submitting Your Sitemap to Google.

Procedure 7.1. To Submit Your Sitemap to Google:

1. Sign up for a Google account at Google Webmaster Tools. If you already have a Google account, you can use it.

2. Sign in to your Google Webmaster Tools account at this URL: http://www.google.com/webmasters/tools/home.

3. First you must verify you are the owner of your Publican site. Click the **Add A Site** button.

4. A dialog box is displayed for you to **Add a site** with. Enter the URL of your Publican site in the text entry field and click **Continue**.

5. Follow the instructions that display and upload the HTML file that Google provides to the document root of your website.

6. When you have confirmed that the provided HTML file has been uploaded to the required location by accessing it in a web browser, click the **Verify** button.

7. When you have successfully verified the ownership of your Publican website to Google, return to the Webmaster Tools home page. Your Publican site is listed. Click on it.

8. You are taken to the Webmaster Tools configuration page for your Publican site. On the left side of the page there is a menu. Click on the **Site configuration** menu entry to expand it. Its expanded contents includes a **Sitemaps** entry. Click it.

9. You are taken to a Sitemap submission page. Click the **Submit a Sitemap** button.

10. A text entry field displays, including the base URL of your Publican site, with room to enter the URL of your Sitemap XML file. Enter its location and click the **Submit Sitemap** button. The details of the Sitemap are displayed in a table.

Result.

The Sitemap for your Publican site has been successfully submitted to Google.

3.2. Submitting Your Sitemap to Bing.

Procedure 7.2. To Submit Your Sitemap to Bing:

1. Sign up for a Bing Webmaster Tools account at Bing Webmaster Tools. If you already have a Windows LiveID account, you can use it.

2. Sign in to your Bing Webmaster Tools account at this URL: http://www.bing.com/toolbox/webmaster/.

3. Click the **Add Site** button.

4. The **Add Site** dialog box is displayed. Enter the URL of your Publican site in the text entry field and click **Submit**.

5. The **Verify Ownership** dialog displays, with three options. Follow the instructions given when the **Option 1: Place an XML file on your web server** has been expanded. Upload the **BingSiteAuth.xml** file that Bing provides to the document root of your website.

6. When you have confirmed that the provided **BingSiteAuth.xml** file has been uploaded to the required location by accessing it in a web browser, click the **Verify** button.

7. When you have successfully verified your ownership of your Publican website to Bing, return to the Bing Webmaster Tools home page. Your Publican site is listed. Click on it.

8. Select the **Crawl** tab.

9. Select **Sitemaps** and then **Add Feed**.

10. The **Add Feed** dialog displays. Enter the URL of your Sitemap file and click **Submit**. The details of the Sitemap are displayed.

Result:

The Sitemap for your Publican site has been successfully submitted to Bing.

Chapter 8. Import book into Drupal

Publican 3.1 has a new functionality which allow user to create and import a book into Drupal. All xml files in a book are transformed into a single CSV file which will later be used to import into Drupal.

1. How to build a CSV file for Drupal import

The CSV File consists of information that tells Drupal how to import the book. Each row in the CSV file represents a html page.

Use the **$ publican build** command to create the CSV file for Drupal import. Before running the command, use the cd command to change into the directory where your book is located. For example, if you have a book call "User_Guide" in your home directory, then run the following command.

```
$ cd User_Guide/
$ publican build --langs en-US --formats=drupal-book
```

After running the command, you will see CSV file is created in the **tmp/en-US/drupal-book/** directory.

Publican stores all the output files in **/tmp/en-US/drupal-book/** directory. This directory contains the following files:

» CSV file - The naming convention of the file is **$product-$version-$docname-$lang-$edition.csv**

» en-US directory - contains all the html images.

» tar.gz file - the archive of both CSV file and en-US directory.

> **Important — Use version control system**
>
> After running the **$ publican build --langs en-US --formats=drupal-book** command, you will notice that the xml files in the **en-US** directory had been changed. This is because **Publican** added a **'Conformance'** attribute for every xml tag that has id. This attribute contains a number which is unique across xml files in the book. If you are using a version control system like **git** for your xml files, then you need to commit the changes so that the number won't get reset when other users run it. These unique numbers are very important, because they are use as the url path in drupal. Besides, **Publican** also created a database file name **max_unique_id.db** in the **en-US** directory. This database file is use to track the current maximum unique number in the book, so that **Publican** can know where you are up to and add a new unique number for your newly created Chapter or Section. Therefore, it is very important to add the database file to the version control and commit it if there is any change. If you add a new section in the xml, don't set the **'Comformance'** attribute yourself as that will make the database outdated. Just leave it for **publican** to set it.

2. The publican.cfg file

Below are some parameters that can be configure in the publican.cfg file for Drupal import:

drupal_author

> specfies the author who should be shown in drupal book page. The name must be a valid Drupal username. 'Redhat' is the default author. Set this parameter in the **publican.cfg** file to override it.

> > **Important — Setting Author**
> >
> > The author must have permission to manage (create, update, delete) nodes in Drupal. If the default author is used, make sure you had created an account with username 'Redhat' in Drupal.

drupal_menu_title

> override the bookname that will be shown in the Drupal menu. If nothing is set, **publican** will use the default value which is "$product $version $docname". For example, Publican 3.1 User_Guide.

drupal_menu_block

> specfies which menu block the book should show in Drupal. The default value is *"user-guide"*.

> > **Important — Setting menu block**
> >
> > The menu block must exist in Drupal. For more information about adding a menu block in Drupal. Please refer to Section 3.1, "How to add a menu block".

drupal_image_path

> specfies the directory where the images should be stored in drupal server. The default value is **"sites/default/files/"**.

3. Drupal Import Guide

Before you can import a book, you need to install a module call **'Node Import'** in Drupal. This module allows Drupal to import and update content from CSV or TSV files. To install this module, simply go to drupal site and follow the instructions on the website to download it. Once this is done, then you need to copy the downloaded module to the 'modules' directory on the Drupal server. For example if your Drupal is located in **/var/www/html/drupal/** directory, then you should copy the module to **/var/www/html/drupal/sites/all/modules/** directory. To enable the installed module, login to the Drupal site and go to **Administer -> Site building -> Modules** . In the Development section, tick the **checkbox** and click **Save configuration** button to activate the **Node Import** Module.

> **Important — Enable Drupal Core Modules**
>
> You also need to enable the following Drupal core modules:
>
> » **Book**
>
> » **Menu**
>
> » **Path**

> **Permission to install Module**
>
> Please consult your web adminstrator if you don't have permission to install module in drupal.

3.1. How to add a menu block

You can specify which menu the book should be showing in Drupal. If the specified menu block doesn't exist, Drupal will throw all the imported contents in the primary link. Therefore, if you wish to list your book in a menu block, make sure you create one before importing the book. To add a new menu block, simply login to your Drupal site and go to `Administer -> Menus -> Add menu` .

- **Menu name** - The unique name for the menu. This is the value that you should set for the *drupal_menu_block* parameter in **publican.cfg**.

- **Title** - The title of the menu. It will be displayed on top of the menu block.

3.2. Setting up Node import

Home › Administer › Content management › Import content

Import content   List   New import   **Settings**

Import directory:

sites/default/files/ [imports   ] /

Enter the directory, relative to *sites/default/files*, where the files to import are stored. If FTP is enabled, this is also the

FTP settings

☑ Allow FTP uploads

If checked users can upload files to the import directory by using FTP (or other means) in addition to uploading files

File owner:

[○]

Files uploaded by FTP are assigned "ownership" to this user. Users will only be allowed to use files they have upload
field blank, all files uploaded by FTP will be "owned" by anonymous and so all users will see those files as being avai
uploaded using FTP will be "owned" by that user and only that user will be able to see those uploaded files (in addit
this blank.

Allowed extensions:

[csv tsv txt   ]

Enter a space-delimited list of allowed file extensions. Only files uploaded with these extensions are allowed, other

Default settings

Content type:

⦿ *Book Page* content type

○ *Page* content type

○ *Story* content type

○ Users

○ Vocabularies

○ *test* content type

Select the default content type for pending task.

☑ First row contains column names

Check this option if the first row of the file contains names for each column. If the first row of the file contains data t

[Save configuration]   [Reset to defaults]

❋ **Import directory** - Where the CSV files to be imported are stored. The default path is
   sites/default/files/imports/ .

❋ **FTP settings**

   ▫ **Allow FTP uploads** - Make sure the checkbox is checked, so that the new CSV file
      can be auto-detected when it is uploaded into the **import directory**.

- **File owner** - The CSV file that you uploaded to the **import directory** will be assigned ownership to this user.

  > **Important — File Ownership**
  >
  > Users will only be allowed to use files they have uploaded themselves and files owned by anonymous. If you leave this field blank, all files uploaded by FTP will be owned by anonymous and so all users will see those files as being available for them. If you enter a username here, files that are uploaded using FTP will be owned by that user and only that user will be able to see those uploaded files. It is recommended to leave this field blank.

- **Allowed extensions** - The allowed import file's extension. Other extensions will be ignore by the module.

- **Default settings**

  - **Content type** - The default content type that will be used for quick import. Make sure the *Book Page content type* is checked.

  - **First row contains column names** - This tells the node import module that the first row of the csv file is the headers.

3.3. How to import book

To import book into Drupal:

1. Follow the steps in Section 1, "How to build a CSV file for Drupal import"

2. Upload the CSV file to **import Directory** in the Drupal Server

3. Upload **en-US** directory to the **"sites/default/files/"** directory in the Drupal server. This value can be overriden in the **publican.cfg**. For more details, please read Section 2, "The publican.cfg file"

4. Login to the Drupal website, and go to **Administer -> Content management -> Import content**. You will see the CSV file that you just uploaded is showing in the 'Pending Tasks" table and it is ready to import.

5. Click **Import now** to start importing book. You will be redirect to the next page which is showing the import progress. When the progress bar hit 100%, that means the import is done!

6. The book link should be showing in the specified menu block now.

3.4. How to update book

Simply repeat the steps in Section 3.3, "How to import book" to update the book.

Warning — Section Chunking

If you update the book with smaller chunks, than the missing chunks will be deleted by Drupal and the URL path for the deleted chunks will be deleted as well.

Chapter 9. Frequently Asked Questions

Q: **How do I add a language to my book?**

A: Run **$ publican update_po --langs=*language***, where *language* is the code for the new language that you want to add. You can add more than one language at a time, with the language codes separated by commas. For example, **publican update_po --langs=ja-JP** creates the Japanese language directory and Japanese PO files, and **publican update_po --langs=ja-JP,ko-KR** creates directories and PO files for both Japanese and Korean.

Q: **What if I do not want to use the country code? For example, can I run $ publican update_po --langs=es,de,fr?**

A: Yes — this command works. However, if you omit the country code, the output might be unpredictable when **Publican** or a brand has definitions for more than one regional variety of a language — for example, **zh-CN** (Simplified Chinese as used in the People's Republic of China) and **zh-TW** (Traditional Chinese as used in the Republic of China, on Taiwan). Even when only one variety is currently defined, it is always safest to include the country code so that, for example, a future update of **Publican** does not suddenly cause your German (**de-DE**) documents to switch to Schweizerdeutsch (Swiss German, **de-CH**) Common Content and headings.

Q: **How do I update all po files?**

A: Run the **$ publican update_po --langs=all** command.

Q: **Where can I get a complete list of Publican's build options?**

A: Run the **$ publican build --help** command.

Q: **Where can I get a complete list of parameters that can be set in the publican.cfg?**

A: Run the **$ publican help_config** command in a directory that holds any **Publican** document.

Q: **Where are the Publican common files located?**

A: By default, they are in **/usr/share/publican/** on Linux operating systems and in **%SystemDrive%/%ProgramFiles%/publican/Common_Content** on Windows operating systems — typically, **C:/Program Files/publican/Common_Content**.

Q: **Is it possible to include arbitrary files in tarballs and RPM packages?**

A: Yes. If you make a directory named **files** in your source language directory it will be included in any tarballs or SRPM packages that **Publican** creates.

> **Important**
>
> The **files** directory will not be available during the validation process so you can not **xi:include** or otherwise embed any files in this directory in your XML.

Q: **Why does Publican give me warnings about unknown tags?**

A: This warning informs you that you are using a tag whose output has not been tested for attractiveness, XHTML 1.0 Strict compliance, or Section 508 (Accessibility) compliance.

Q: **I can build HTML documents fine, but when I try to build PDF documents, I get errors like java.lang.NullPointerException and no PDF file is produced. What is wrong?**

A: Try building a PDF version of a different document — perhaps a fresh one that you create with the **$ publican create** command. If the problem is not just with one particular document, you probably have a mismatch between the **Java Runtime Environment** (JRE) and the **Java Development Kit** (JDK) in use on your system. If you have a JDK installed, **FOP** requires that the JDK is of the same version as the JRE. Furthermore, **FOP** cannot use the **GNU Compiler for Java** (GCJ).

Run **alternatives --config java** and **alternatives --config javac** to determine which JRE and JDK are in use, then select versions that match and which do not have **gcj** in their name. For example, the following Java configuration shows a matching JRE and JDK that allow PDFs to build:

```
$ alternatives --config java

There are 3 programs which provide 'java'.

  Selection    Command
-----------------------------------------------
   1           /usr/lib/jvm/jre-1.5.0-gcj/bin/java
*  2           /usr/lib/jvm/jre-1.6.0-openjdk/bin/java
 + 3           /usr/lib/jvm/jre-1.6.0-openjdk.x86_64/bin/java

Enter to keep the current selection[+], or type selection
number:
```

```
$ alternatives --config javac

There are 3 programs which provide 'javac'.

  Selection    Command
```

```
--------------------------------------------
*+ 1              /usr/lib/jvm/java-1.6.0-openjdk.x86_64/bin/javac
   2              /usr/lib/jvm/java-1.6.0-openjdk/bin/javac
   3              /usr/lib/jvm/java-1.5.0-gcj/bin/javac

Enter to keep the current selection[+], or type selection
number:
```

You might need to install an extra JDK if you do not have a JDK on your system that matches any of the JREs.

Some Java installations do not set up the **alternatives** environment correctly. No fix has been determined for this situation.

Q: **I get an error saying Batik is not in the classpath but Batik is installed! What is wrong?**

A: We believe this is due to classpath issues caused by having different JRE and JDK versions in use. Refer to the previous question in this FAQ about **java.lang.NullPointerException** errors and using the **alternatives** command to ensure that the JRE and JDK match.

Q: **I get an error `Exception in thread "main" java.lang.OutOfMemoryError: Java heap space` when trying to build PDF. What is wrong?**

A: The default memory allocated for Java is not big enough to build your PDF. You need to increase the memory allocated to **FOP**. Before running **$ publican build** run **echo "FOP_OPTS='-Xms50m -Xmx700m'" > ~/.foprc**. This sets the initial heap space to 50 MB and allows it to grow to a maximum of 700 MB.

Q: **Previous versions of Publican removed empty <para> tags. Does Publican still do this?**

A: No. **Publican** previously removed empty **<para>** tags while it transformed XML because empty **<para>** tags broke earlier translation toolchains used within Red Hat and the Fedora Project. Empty **<para>** tags are valid DocBook XML, and **Publican** no longer removes them.

Q: **What happened to the spell check?**

A: Early versions of **Publican** (up to and including 0.45) ran a spell check while transforming a document's XML. Due to negative feedback from users, this feature was dropped.

Run the following bash script in the root directory of your document to check spellings in your XML files with the **aspell** command-line spell checker.

```
#!/bin/sh
# Jeff Fearn 2010

ASPELL_EXCLUDES=programlisting,userinput,screen,filename,command,c
omputeroutput,abbrev,accel,orgname,surname,foreignphrase,acronym,h
ardware

for file in `find en-US -wholename '*/extras/*' -prune -o -name
\*.xml -print`; do
 echo "Processing $file";
 aspell --list --lang=en-US --mode=sgml --add-sgml-skip=
{$ASPELL_EXCLUDES} < $file  | sort -u;
 echo;
done
```

Q: **Why don't <segmentedlist>s work when I build PDFs?**

A: Check the number of columns in your **<segmentedlist>**s. When **<segmentedlist>**s are formatted as tables, the DocBook XSL limits the number of columns to two, and **Publican** formats **<segmentedlist>**s as tables.

Q: **What happened to the colors in my images in this PDF?**

A: This is the result of a bug in **FOP** that distorts colors in 24-bit PNG images. Convert your images to 32-bit PNG images to work around the problem.

Q: **When I build my document, I get an error about an 'undefined language' — what's wrong?**

A: Code highlighting in **Publican** is generated with the **Syntax::Highlight::Engine::Kate** Perl module. If you specify a language in a **<programlisting>** tag that **Syntax::Highlight::Engine::Kate** does not recognize, you receive an error when you build your book. The first lines of the error message are similar to:

```
undefined language: JAVA at
/usr/lib/perl5/vendor_perl/5.10.0/Syntax/Highlight/Engine/Kate.
pm
line 615.
cannot create plugin for language 'JAVA'
```

Note that **Syntax::Highlight::Engine::Kate** is very strict about names of languages and is case sensitive. Therefore, **<programlisting language="Java">** works, but **<programlisting language="java">** and **<programlisting language="JAVA">** do not. The error message that you receive identifies the problematic language attribute.

Refer to http://search.cpan.org/dist/Syntax-Highlight-Engine-Kate/lib/Syntax/Highlight/Engine/Kate.pm#PLUGINS for the full list of languages that

Syntax::Highlight::Engine::Kate supports, including their expected capitalization and punctuation.

Q: **How do I enable bash command-line completion for Publican?**

A: Support for bash command-line completion is a new feature in **Publican 2.2**. To enable this feature:

1. Install the package or packages that provide bash completion for your operating system. For example, on Fedora, run **sudo yum install bash-completion**.
2. Add the following to your **~/.bashrc** file:

```
# Use bash-completion, if available
if [ -f /etc/bash_completion ]; then
        . /etc/bash_completion
fi
```

3. Restart your terminal or run **source ~/.bashrc**.

Q: **Why am I having trouble building my large book?**

A: Probably because the kernel can deal with only a certain number of file handles at a time, and you have exceeded that number. On some linuxes you can run **ulimit -n 8192** to change the limit for the current shell.

To make this permanent, open **/etc/security/limits.conf** and add these two lines:

```
*               soft    nofile          8192
*               hard    nofile           8192
```

Then save, and log in again for the changes to take effect.

Q: **Why does Jeff call Isaac 'Ivan'?**

A: Because Jeff's memory is pants!

Discouraged elements and attributes

> **Supported, unsupported, and discouraged**
>
> Not every *element* (tag) and attribute that works with **Publican** is *supported*. Specifically, not every tag has been tested with regards its effect on the presentation of a document once it has been built in HTML or PDF.

Publican works with almost all DocBook elements and their attributes, and most of these elements are *supported*. Supported elements and attributes are those whose presentation in **Publican** HTML and PDF output has been tested and is of an acceptable quality.

Other elements and attributes that are not known to be harmful or redundant but which have not been tested for quality are *unsupported*. If material within a particular DocBook tag does not look correct when you build a document in HTML or PDF, the problem could be that the transformation logic for that tag has not yet been tested. Build the document again and examine **Publican**'s output as the document builds. **Publican** presents warnings about unsupported tags that it encounters in your XML files.

Finally, a small group of elements and attributes are *discouraged*. These elements and attributes are set out below, each accompanied by rationale explaining why it is discouraged.

Use the command **$ publican print_known** to print a list of tags that **Publican** supports, and the command **publican print_banned** to print a list of tags that are banned in **Publican**.

1. Discouraged elements

<glossdiv>

> This tag set presents terms in glossaries in alphabetical order; however, the terms are sorted according to the original language of the XML, regardless of how these terms are translated into any other language. For example, a glossary produced with **<glossdiv>**s that looks like this in English:

> **A**
>
> > **Apple** — an *apple* is…

> **G**
>
> > **Grapes** — *grapes* are…

> **O**
>
> > **Orange** — an *orange* is…

> **P**
>
> > **Peach** — a *peach* is…

> looks like this in Spanish:

> **A**

> **Manzana** — la *manzana* es…

G

> **Uva** — la *uva* es…

O

> **Naranja** — la *naranja* es…

P

> **Melocotonero** — el *melocotonero* es…

In a translated language that does not share the same writing system with the original language in which the XML was written, the result is even more nonsensical.

`<inlinegraphic>`

> This element presents information as a graphic rather than as text and does not provide an option to present a text alternative to the graphic. This tag therefore hides information from people with visual impairments. In jurisdictions that have legal requirements for electronic content to be accessible to people with visual impairments, documents that use this tag will not satisfy those requirements. Section 508 of the *Rehabilitation Act of 1973*[4] is an example of such a requirement for federal agencies in the United States.
>
> Note that **`<inlinegraphic>`** is not valid in DocBook version 5.

`<olink>`

> The **`<olink>`** tag provides cross-references between XML documents. For **`<olink>`**s to work outside of documents that are all hosted within the same library of XML files, you must provide a URL for the document to which you are linking. In environments that use **`<olink>`**s, these URLs can be supplied either as an XML entity or with a server-side script. **Publican** does not provide any way to build or use a database for these links.

2. Discouraged attributes

`<[element] xreflabel="[any_string_here]">`

> The presence of an **`<xreflabel>`** attribute reduces the usability of printed versions of a book. As well, attribute values are not seen by translators and, consequently, cannot be translated.
>
> For example, if you have the following:

```
<chapter id="ch03" xreflabel="Chapter Three">
 <title>The Secret to Eternal Life</title>
 <para>The secret to eternal life is…</para>
</chapter>

[more deathless prose here]

…see <xref linkend="ch03"> for details.
```

when your XML is built to HTML, the **<xref>** tag becomes an HTML anchor tag as follows:

```
…see <a href="#ch03">Chapter Three</a> for details.
```

The text contained by the anchor tag is the same as the data in the **<xreflabel>** attribute. In this case, it means that readers of printed copies have less information available to them.

You could work around this if you make the value of the **<xreflabel>** attribute the same as the text within the **<title></title>** element tags. However, this duplication increases the risk of typo-level errors and otherwise offers no underlying improvement. And it still reduces the amount of information presented to readers of printed copies.

The following XML:

```
<chapter id="ch03" xreflabel="The Secret to Eternal Life">
 <title>The Secret to Eternal Life</title>
 <para>The secret to eternal life is…</para>
</chapter>

[more deathless prose here]

…see >xref linkend="ch03"> for details.
```

Will result in an HTML anchor tag as follows:

```
…see <a href="#ch03">The Secret to Eternal Life</a> for details.
```

This isn't as informative as the text presented to a reader if you do not use an **<xreflabel>** attribute. The following:

```
<chapter id="ch03">
 <title>The Secret to Eternal Life</title>
 <para>The secret to eternal life is…</para>
</chapter>

[more deathless prose here]

…see <xref linkend="ch03"> for details.
```

transforms the **<xref>** element as follows when built to HTML:

```
…see <a href="#ch03">Chapter 3: The Secret to Eternal Life</a>
for details.
```

More important, however, are the translation problems that **<xreflabel>** tags cause. Attribute values are not seen by translators. Consequently, they are not translated. Consider the second example above again:

```
<chapter id="ch03" xreflabel="The Secret to Eternal Life">
 <title>The Secret to Eternal Life</title>
 <para>The secret to eternal life is…</para>
</chapter>
```

```
[more deathless prose here]

…see <xref linkend="ch03"> for details.
```

In English, the **<xref>** is still transformed into an anchor tag as follows:

```
…see <a href="#ch03">The Secret to Eternal Life</a> for details.
```

Someone reading the German version, however, will have this as their underlying HTML:

```
…Sehen Sie <a href="#ch03">The Secret to Eternal Life</a> für
Details.
```

If the **<xreflabel>** attribute is not used, the title and chapter indicator, both properly translated, appear to the reader. That is, the following:

```
<chapter id="ch03">
 <title>The Secret to Eternal Life</title>
 <para>The secret to eternal life is…</para>
</chapter>

[more deathless prose here]

…see <xref linkend="ch03"> for details.
```

will, after translation, present thus to a German-speaking reader:

```
…Sehen Sie <a href="#ch03">Kapitel 3: Das Geheimnis des ewigen
Lebens</a> für Details.
```

This is, not surprisingly, what we want.

The *xreflabel* attribute is therefore discouraged.

<[element] endterm="[any_string_here]">

The *endterm* attribute allows you to present hyperlinked text other than the name of the section or chapter to which the hyperlink points. As such, it decreases the usability of printed versions of documents, and causes difficulty for translators.

The text presented in an element (such as an **<xref>**) that contains the *endterm* attribute is taken from a **<titleabbrev>** tag in the target chapter or section. Although the content of the **<titleabbrev>** tag is available to translators in the document's PO files, it is removed from the context of the **<xref>**. The absence of this context makes reliable translation impossible in languages that mark prepositions or articles for grammatical number and grammatical gender.

For example, if you have the following:

```
<chapter id="The_Secret">
 <title>The Secret to Eternal Life</title>
 <titleabbrev id="final">the final chapter</titleabbrev>

 <para>The secret to eternal life is…</para>
```

```
</chapter>

[more deathless prose here]

The solution is in <xref linkend="The_Secret" endterm="final"/>.
```

The text surrounding the **<xref>** presents in the English version of the document as:

> The solution is in **the final chapter**.

A translator sees the **<titleabbrev>** in a PO file as:

```
#. Tag: titleabbrev
#, no-c-format
msgid "the final chapter"
msgstr ""
```

and sees the text that contains the **<xref>** elsewhere in the PO file (or, more likely, in a completely different PO file) as:

```
#. Tag: para
#, no-c-format
msgid "The solution is in <xref linkend=\"The_Secret\"
endterm=\"final\"/>."
msgstr ""
```

The translator has no way of telling what will be substituted for **<xref linkend="The_Secret" endterm="final"/>** when the document builds, so a translation in Italian might read:

```
#. Tag: para
#, no-c-format
msgid "The solution is in <xref linkend=\"The_Secret\"
endterm=\"final\"/>."
msgstr "La soluzione è in <xref linkend=\"The_Secret\"
endterm=\"final\"/>."
```

Note the preposition **in**.

If the translator rendered **the final chapter** in Italian as **l'ultimo capitolo**, the result when the document builds will read:

> La soluzione è in **l'ultimo capitolo**.

This result is comprehensible, but inelegant, because Italian combines some of its prepositions with its definite articles. More elegant Italian would be:

> La soluzione è nell'**ultimo capitolo**.

Without knowing what text will appear in place of <xref linkend="The_Secret" endterm="final"/>, the translator into Italian cannot know whether to leave the preposition **in** to stand by itself, or which of seven different possible combinations with the definite article to use: **nel**, **nei**, **nello**, **nell'**, **negli**, **nella**, or **nelle**.

Furthermore, note that the combined preposition and article also poses a problem

with regard to whether this word should be placed in the text surrounding the **<xref>**, or in the **<titleabbrev>**. Whichever of these two solutions the translator selects will cause problems when the *endterm* appears in other grammatical contexts, because not all Italian prepositions can combine with the definite article in this way.

Due to the problems that *endterm* presents for translation, **Publican** discourages this attribute.

---

[4] Refer to http://www.section508.gov/

Command summary

1. Command options

--allow_network

Allow the XML and XSLT processing to access the network. Defaults off.

--brand_dir=s

Directory to source brand files from.

--common_config=s

Override path to Common_Config directory

--common_content=s

Override path to Common_Content directory

--config=s

Use a nonstandard config file

--help

Display help message

--nocolours

Disable ANSI colourisation of logging.

--quiet

Disable all logging.

2. Command actions

$ publican add_revision

Add an entry to the revision history

--date=*DATE*

Date to use for a revision.

--email=*EMAIL*

email to use for a revision.

--firstname=*FIRSTNAME*

firstname to use for a revision.

--lang=*LANG*

The language the XML will be written in

--member=*MEMBER*

An entry to be added to the revision. Can be specified multiple times.

--revnumber=*REVNUMBER*

Revision number to use for a revision.

--surname=*SURNAME*

surname to use for a revision.

$ publican build

Transform XML to other formats (pdf, html, html-single, drupal-book, etc)

--distributed_set

This flag tells publican the data being processed is a distributed set. Note: do not use distributed_set on the command line. Publican uses this flag when calling itself to process distributed sets. This is the only safe way this flag can be used.

--embedtoc

Embed the web site TOC object in the generated HTML

--formats=*FORMATS*

Comma-separated list of formats, for example: html,pdf,html-single,html-desktop,txt,epub

--langs=*LANGS*

Comma-separated list of languages, for example: en-US,de-DE,all

--novalid

Do not run the DTD validation

--pdftool=*PDFTOOL*

Override the tool to use when creating PDFs. Valid options are wkhtmltopdf and fop.

--pub_dir=*PUB_DIR*

Directory to publish files to. Defaults to publish.

--publish

Set up built content for publishing

--showfuzzy

Show fuzzy translation entries in output. Defaults off.

--src_dir=*SRC_DIR*

Directory to source publican files from.

$ publican clean

Remove all temporary files and directories

--pub_dir=_PUB_DIR_

>> Directory to publish files to. Defaults to publish.

$ publican clean_ids

> Run clean ids for source XML

$ publican clean_set

> Remove local copies of remote set books

$ publican copy_web_brand

> Copy a brand's installed web content to another site

--brand=_BRAND_

>> The brand to use

--old_site_config=_OLD_SITE_CONFIG_

>> WebSite configuration file to use when copying content between sites.

--site_config=_SITE_CONFIG_

>> WebSite configuration file to use or create.

$ publican create

> Create a new book, set, or article

--brand=_BRAND_

>> The brand to use

--dtdver=_DTDVER_

>> The version of the DocBook DTD to use

--edition=_EDITION_

>> The edition of the book, article, or set

--lang=_LANG_

>> The language the XML will be written in

--name=_NAME_

>> The name of the book, article, set, or brand

--product=_PRODUCT_

>> The name of the product

--type=_TYPE_

>> The type (book, article, or set)

--version=_VERSION_

>> The version of the product

$ publican create_brand

Create a new brand

--lang=*LANG*

The language the XML will be written in

--name=*NAME*

The name of the book, article, set, or brand

$ publican create_site

Create a new WebSite in the supplied location.

--db_file=*DB_FILE*

Override default database file.

--lang=*LANG*

The language the XML will be written in

--site_config=*SITE_CONFIG*

WebSite configuration file to use or create.

--tmpl_path=*TMPL_PATH*

Override the default template path.

--toc_path=*TOC_PATH*

Override the default TOC path.

$ publican help_config

Display help text for the configuration file

$ publican install_book

Install a book in to a WebSite.

--lang=*LANG*

The language the XML will be written in

--site_config=*SITE_CONFIG*

WebSite configuration file to use or create.

$ publican install_brand

Install a brand to the supplied location

--path=*PATH*

/path/to/install/to

--pub_dir=*PUB_DIR*

Directory to publish files to. Defaults to publish.

--web

        Install the web content for a brand.

$ publican lang_stats

    report PO statistics

--lang=*LANG*

        The language the XML will be written in

$ publican migrate_site

    Migrate a website DataBase from Publican < 3 to Publican 3.

--site_config=*SITE_CONFIG*

        WebSite configuration file to use or create.

$ publican package

    Package a language for shipping

--binary

        Build binary rpm when running package

--brew

        Push SRPM to brew

--desktop

        Create desktop instead of web package

--lang=*LANG*

        The language the XML will be written in

--pub_dir=*PUB_DIR*

        Directory to publish files to. Defaults to publish.

--scratch

        Use scratch instead of tag build

--short_sighted

        Create package without using version in package name

--wait

        Wait for brew to finish building

$ publican print_banned

    Print a list of banned DocBook tags

$ publican print_known

    Print a list of QA'd DocBook tags

$ publican print_tree

Print a tree of the xi:includes

$ publican print_unused

Print a list of unused XML files

$ publican print_unused_images

Print a list of unused Image files

$ publican remove_book

Remove a book from a WebSite.

--lang=*LANG*

The language the XML will be written in

--site_config=*SITE_CONFIG*

WebSite configuration file to use or create.

$ publican rename

Rename a publican book

--name=*NAME*

The name of the book, article, set, or brand

--product=*PRODUCT*

The name of the product

--version=*VERSION*

The version of the product

$ publican report

Print a readability report for the source text.

$ publican site_stats

Report on the contents of a WebSite

--site_config=*SITE_CONFIG*

WebSite configuration file to use or create.

$ publican trans_drop

Snapshot the source language for use in translation.

$ publican update_db

Add or remove database entries. Used for processing pre-build books, such as when building packages.

--abstract=*ABSTRACT*

Abstract for a book

--add

Add a database entry

--book_src_lang=*BOOK_SRC_LANG*

The language this translation is based on.

--book_version=*BOOK_VERSION*

The version number of the book being installed.

--del

Delete a database entry

--formats=*FORMATS*

Comma-separated list of formats, for example: html,pdf,html-single,html-desktop,txt,epub

--lang=*LANG*

The language the XML will be written in

--name=*NAME*

The name of the book, article, set, or brand

--name_label=*NAME_LABEL*

name label for a book

--product=*PRODUCT*

The name of the product

--product_label=*PRODUCT_LABEL*

product label for a book

--site_config=*SITE_CONFIG*

WebSite configuration file to use or create.

--sort_order=*SORT_ORDER*

Order to sort a book

--subtitle=*SUBTITLE*

Sub title for a book

--version=*VERSION*

The version of the product

--version_label=*VERSION_LABEL*

version label for a book

`$ publican update_po`

Update the PO files

--email=*EMAIL*

email to use for a revision.

--firstname=*FIRSTNAME*

firstname to use for a revision.

--langs=*LANGS*

Comma-separated list of languages, for example: en-US,de-DE,all

--msgmerge

Use gettext's msgmerge for POT/PO merging.

--previous

Keep previous msgid when fuzzy matches are detected in PO updates.

--surname=*SURNAME*

surname to use for a revision.

$ publican update_pot

Update the POT files

$ publican update_site

Update an existing sites templates.

--site_config=*SITE_CONFIG*

WebSite configuration file to use or create.

$ publican zt_pull

Pull translations from Zanata.

$ publican zt_push

Push translations to Zanata.

Configuration summary

1. General options

These are set in the books or brands configuration files.

arch

> Arch to filter output on.

audience

> audience to filter output on.

books

> A space-separated list of books used in this remote set.

brand

> The brand to use when building this package.
>
> The default value for this parameter is: common

brew_dist

> The brew dist to use for building the standalone desktop rpm.
>
> The default value for this parameter is: docs-5E

> **Warning**
>
> This field is deprecated and will be removed from Publican in the future.

bridgehead_in_toc

> Display bridge head elements in the TOCs?
>
> The default value for this parameter is: 0

chunk_first

> For HTML, should the first section be on the same page as its parent?
>
> The default value for this parameter is: 0

chunk_section_depth

> For HTML, what is the deepest level of nesting at which a section should be split onto its own page?
>
> The default value for this parameter is: 4

classpath

> Path to jar files for FOP.

The default value for this parameter is: /usr/share/java/ant/ant-trax-1.7.0.jar:/usr/share/java/xmlgraphics-commons.jar:/usr/share/java/batik-all.jar:/usr/share/java/xml-commons-apis.jar:/usr/share/java/xml-commons-apis-ext.jar

common_config

Path to publican content.

The default value for this parameter is: /usr/share/publican

common_content

Path to publican common content.

The default value for this parameter is: /usr/share/publican/Common_Content

condition

Conditions on which to prune XML before transformation.

confidential

Is the content confidential?

The default value for this parameter is: 0

confidential_text

The text used to indicate content is confidential.

The default value for this parameter is: CONFIDENTIAL

conformance

conformance to filter output on.

debug

Print out extra messages?

The default value for this parameter is: 0

doc_url

URL for the documentation team for this package. Used for top right URL on HTML.

The default value for this parameter is: https://fedorahosted.org/publican

docname

Name of this document. Fetched from title tag in xml_lang/TYPE_Info.xml if not set in cfg file.

This parameter is constrained with the following regular expression: ^[0-9a-zA-Z_\-\.\+]+$

> **Tip**
>
> This field is not supported for: brand.

drupal_author

> The author name to be shown in drupal book page. It must be a valid drupal username.
>
> The default value for this parameter is: Publican

drupal_image_path

> The directory where the image should be stored in drupal server.
>
> The default value for this parameter is: /sites/default/files/documentation/

drupal_menu_block

> The menu where we can find the book.
>
> The default value for this parameter is: user-guide

drupal_menu_title

> Override the bookname that will be shown in the drupal menu.

dt_format

> The format to use for the desktop output.
>
> The default value for this parameter is: html-desktop

dt_obsoletes

> Space-separated list of packages the desktop RPM obsoletes.

dt_requires

> Space-separated list of packages the desktop RPM requires.

dtdver

> Version of the DocBook DTD on which this project is based.
>
> The default value for this parameter is: 4.5

ec_id

> Eclipse plugin ID. Defaults to "$product.$docname"

ec_name

> Eclipse plugin name. Defaults to "$product $docname"

ec_provider

> Eclipse plugin provider. Defaults to "Publican-v4.2.2"

extras_dir

> Directory where images are located.
>
> The default value for this parameter is: extras

generate_section_toc_level

> Generate table of contents down to the given section depth.

The default value for this parameter is: 0

ignored_translations

Languages to replace with xml_lang regardless of translation status.

img_dir

Directory where images are located.

The default value for this parameter is: images

info_file

Override the default Info file.

lang

lang to filter output on.

license

License this package uses.

The default value for this parameter is: GFDL

mainfile

The name of the main xml and ent files for this book, sans file extension and language. Fetched from docname if not set.

menu_category

Semicolon-separated list of menu categories for the desktop package.

os

os to filter output on.

os_ver

The OS for which to build packages.

pdf_body_font

The font to use for body text in PDFs.

The default value for this parameter is: Liberation Sans

pdf_mono_font

The font to use for mono text in PDFs.

The default value for this parameter is: Liberation Mono

prod_url

URL for the product. Used in top left URL in HTML.

The default value for this parameter is: https://fedorahosted.org/publican

product

Product this package covers. Fetched from productname tag in xml_lang/TYPE_Info.xml

This parameter is constrained with the following regular expression: ^[0-9a-zA-Z_\-\.\+]+$

> **Tip**
>
> This field is not supported for: brand.

repo

Repository from which to fetch remote set books.

rev_dir

By default Revision History is sorted in descending order. Set this to 'asc' or 'ascending' to reverse the sort.

rev_file

Override the default Revision History file.

revision

revision to filter output on.

revisionflag

revisionflag to filter output on.

role

role to filter output on.

scm

Type of repository in which books that form part of a remote set are stored. Supported types: SVN, GIT.

security

security to filter output on.

show_remarks

Display remarks in transformed output.

The default value for this parameter is: 0

sort_order

Override the default sort weighting. Defaults to 50.

src_url

URL to find tar of source files. Used in RPM Spec files.

status

status to filter output on.

tmp_dir

> Directory to use for building.
>
> The default value for this parameter is: tmp

toc_section_depth

> Depth of sections to include in the main table of contents.
>
> The default value for this parameter is: 2

txt_formater

> Choose the formatter to use when creating txt output.
>
> The default value for this parameter is: default
>
> This parameter is constrained with the following regular expression: ^(links{1}|tables{1}|default)$

type

> Type of content this package contains. Supported: set, book, article, brand
>
> The default value for this parameter is: Book

userlevel

> userlevel to filter output on.

vendor

> vendor to filter output on.

version

> Version of this package. Fetched from productnumber tag in xml_lang/TYPE_Info.xml
>
> This parameter is constrained with the following regular expression: ^[0-9] [^\p{IsSpace}]*$

web_brew_dist

> The brew dist to use for building the web rpm.
>
> The default value for this parameter is: docs-5E

web_formats

> A comma-separated list of the formats to use for the web packages.
>
> The default value for this parameter is: html,html-single,pdf,epub

web_home

> This is a home page for a Publican-generated website, not a standard book.
>
> > **Warning**
> >
> > web_home is deprecated and will be removed from Publican in the future. Use "web_type: home" instead.

web_host

> This is a host name for a Publican-generated website, used for searches and the Sitemap. Be sure to include the full path to your document tree. E.g. if your documents are in the docs directory: http://www.example.com/docs
>
> > **Warning**
> >
> > web_host is deprecated and will be removed from Publican in the future. Use "host" in the web site configuration file instead.

web_name_label

> Override the book name, bottom level, menu label on a Publican website.

web_obsoletes

> Packages to obsolete in web RPM.

web_product_label

> Override the product, top level, menu label on a Publican website.

web_search

> Override the default search form for a Publican website. By default this will use Google search and do a site search if web_host is set.
>
> > **Warning**
> >
> > web_search is deprecated and will be removed from Publican in the future. Use "search" in the web site configuration file instead.

web_type

> This is a special page for a Publican-generated website, not a standard book. Valid types are home, product, and version.
>
> This parameter is constrained with the following regular expression: ^(home|product|version)$

web_version_label

> Override the version, middle level, menu label on a Publican website. To hide this menu item set this to: UNUSED

wkhtmltopdf_opts

> Extra options to pass to wkhtmltopdf. e.g. wkhtmltopdf_opts: "-O landscape -s A3"

wordsize

> wordsize to filter output on.

xml_lang

> Language in which XML is authored.
>
> The default value for this parameter is: en-US

2. Brand options

These are set in the brands configuration files.

banned_attrs

A comma-separated list of XML attributes that are not permitted in the source.

banned_tags

A comma-separated list of XML tags that are not permitted in the source.

base_brand

The base brand to use for this brand.

The default value for this parameter is: common

dtd_type

Override Type for DocType. Must be a complete string.

dtd_uri

Override URI for DocType. Must be a complete string.

no_embedtoc

Brand option to disable embedding the navigational toc in web packages

web_cfg

Full path for the publican site configuration file for non standard RPM websites.

web_dir

Install path for non standard RPM websites.

web_req

Name of site package for non standard RPM websites. Required to ensure the site is installed.

3. Site options

These are set in the sites configuration file.

db_file

The name of the SQLite database file for your site, with the filename extension .db

debug

Output extra messages when running publican.

The default value for this parameter is: 0

def_lang

The default language for this website. Tables of contents for languages other than the default language will link to documents in the default language when translations are not available.

The default value for this parameter is: en-US

dump

Dump the publican database to an XML file.

dump_file

The name of the file to dump the publican database to.

The default value for this parameter is: /var/www/html/DUMP.xml

footer

HTML to inject in to the footer of every page on the website.

The default value for this parameter is:

host

The web host, may be a full URI or a relative path.

The default value for this parameter is: /docs

manual_toc_update

Stop publican from automatically rebuilding teh web site everytime a book is installed, updated or removed.

The default value for this parameter is: 0

search

The HTML to inject in as the site serach.

The default value for this parameter is: Google site search

title

Title used for all site navigation pages.

The default value for this parameter is: Documentation

tmpl_path

Full path to the template directory.

The default value for this parameter is: /usr/share/publican/templates

toc_js

The source file to use for JavaScript functionality.

The default value for this parameter is: default.js

toc_path

The path to the directory in which to create the top-level index.html file.

toc_type

>   Template to use for generagting the web style 1 toc file.
>
>   The default value for this parameter is: toc
>
>   > **Warning**
>   >
>   > This field is deprecated and will be removed from Publican in the future.

web_style

>   Publican supports mutliple base styles for websites, this picks one.
>
>   The default value for this parameter is: 1
>
>   This parameter is constrained with the following regular expression: [1-2]
>
>   > **Warning**
>   >
>   > This field is deprecated and will be removed from Publican in the future.

zip_dump

>   Zip up the dump file after dumping it
>
>   The default value for this parameter is: 0

Contents of the website dump file

The dump file for a **Publican**-generated website contains some basic site configuration details, together with details of every document published on the site. The site configuration details are:

<host>

> The URL to the root of the documentation site, as set by the *host* parameter in the site configuration file.

<def_lang>

> The default language of the documentation on the website, as set by the *def_lang* parameter in the site configuration file.

Each document, in each language, in each format has a separate record. These records contain the following data:

<name>

> The title of the document, generated from the **<title>** tag in the **Book_Info.xml**, **Article_Info.xml**, or **Set_Info.xml** file unless overridden by the *docname* parameter in the **publican.cfg** file. Any spaces in the title are replaced by underscores.

<ID>

> A unique ID number for this document, in this format, in this language.

****

> A brief summary of the content of the document, generated from the **** tag in the **Book_Info.xml**, **Article_Info.xml**, or **Set_Info.xml** file. **Publican** uses this same content to generate the **%description** section of the spec file when it packages a document. If the **** is translated, this field contains the translated text.

<format>

> The format in which the document is produced — **html** for multi-page html, **html-single** for single-page html, **pdf** for PDF, and **epub** for EPUB.

<language>

> The language code for the document. Refer to Appendix F, *Language codes* for more information about language codes in XML.

<name_label>

> The name of the document as it appears in the site table of contents. This label can be set with the *web_name_label* parameter in the document's **publican.cfg** file. Otherwise, the field is empty for a document in its original language, or uses the translated title of the document in a translated language. Any spaces in the name label are replaced by underscores.

<product>

The product that the document describes, generated from the **<productname>** tag in the **Book_Info.xml**, **Article_Info.xml**, or **Set_Info.xml** file unless overridden by the *product* parameter in the **publican.cfg** file. Any spaces in the product name are replaced by underscores.

<product_label>

The name of the product as it appears in the site table of contents. This label can be set with the *web_product_label* parameter in the document's **publican.cfg** file. Otherwise, the field is empty for a document in its original language, or uses the translated title of the document in a translated language. Any spaces in the name label are replaced by underscores.

If the product label is set to **UNUSED**, no heading for this product appears in the website tables of contents.

<subtitle>

A one-line description of the content of the document, generated from the **<subtitle>** tag in the **Book_Info.xml**, **Article_Info.xml**, or **Set_Info.xml** file. **Publican** uses this same content to generate the **Summary** section of the spec file when it packages a document. If the **<subtitle>** is translated, this field contains the translated text.

<update_date>

The date that the document was most recently installed on the site, in the format YYYY-MM-DD.

<version>

The version of the product that the document describes (*not* the version of the document itself), generated from the **<productnumber>** tag in the **Book_Info.xml**, **Article_Info.xml**, or **Set_Info.xml** file unless overridden by the *version* parameter in the **publican.cfg** file.

<version_label>

The version of the product as it appears in the site table of contents. This label can be set with the *web_version_label* parameter in the document's **publican.cfg** file.

If the version label is set to **UNUSED**, no heading for this version of the product appears in the website tables of contents.

Example D.1. Sample records from a DUMP.xml file

These two records from a **DUMP.xml** file show the same book, the *Red Hat Enterprise Linux 5 Installation Guide*, in two different formats and two different languages — an English PDF version and a French multi-page HTML version.

```
  <record>
    <name>Installation_Guide</name>
    <ID>22</ID>
    <abstract>This manual explains how to boot the Red Hat
Enterprise Linux 5 installation program (anaconda) and to install
Red Hat Enterprise Linux 5 on 32-bit and 64-bit x86 systems, 64-bit
POWER systems, and IBM System z. It also covers advanced
```

```
    installation methods such as kickstart installations, PXE
    installations, and installations over VNC. Finally, it describes
    common post-installation tasks and explains how to troubleshoot
    installation problems.</abstract>
        <format>pdf</format>
        <language>en-US</language>
        <name_label>Installation_Guide</name_label>
        <product>Red_Hat_Enterprise_Linux</product>
        <product_label>Red_Hat_Enterprise_Linux</product_label>
        <subtitle>Installing Red Hat Enterprise Linux 5 for all
architectures</subtitle>
        <update_date>2010-10-07</update_date>
        <version>5</version>
        <version_label></version_label>
      </record>
      <record>
        <name>Installation_Guide</name>
        <ID>149</ID>
        <abstract>Ce manuel explique comment lancer le programme
d'installation Red Hat Enterprise Linux 5 et comment installer Red
Hat Enterprise Linux 5 sur les systèmes x86 32-bit et 64-bit, sur
les systèmes POWER 64-bit, et sur les systèmes IBM System z. Il
couvre aussi des méthodes d'installation avancées telles que les
installations kickstart, PXE, et les installations au moyen de VNC.
Finalement, ce manuel décrit les tâches communes post-installation
et explique comment résoudre les problèmes liés à une installation.
</abstract>
        <format>html</format>
        <language>fr-FR</language>
        <name_label>Guide_d'installation</name_label>
        <product>Red_Hat_Enterprise_Linux</product>
        <product_label>Red_Hat_Enterprise_Linux</product_label>
        <subtitle>Installation de Red Hat Enterprise Linux 5 pour toutes
les architectures</subtitle>
        <update_date>2010-10-19</update_date>
        <version>5</version>
        <version_label></version_label>
      </record>
```

1. Computing URLs from the dump file

Using the following fields, you can compute the URL of any document on the site:

- **<host>**

- **<name>**

- **<format>**

- **<language>**

- **<product>**

- **<version>**

muti-page HTML

> **<host>/<language>/<product>/<version>/<format>/<name>/index.html**

> For example, **http://docs.fedoraproject.org/en-US/Fedora/14/html/Accessibility_Guide/index.html**

single-page HTML

> **<host>/<language>/<product>/<version>/<format>/<name>/index.html**

> For example, **http://docs.fedoraproject.org/en-US/Fedora/14/html-single/Accessibility_Guide/index.html**

PDF

> **<host>/<language>/<product>/<version>/<format>/<name>/<product>-<version>-<name>-<language>.pdf**

> For example, **http://docs.fedoraproject.org/en-US/Fedora/14/pdf/Accessibility_Guide/Fedora-14-Accessibility_Guide-en-US.pdf**

EPUB

> **<host>/<language>/<product>/<version>/<format>/<name>/<product>-<version>-<name>-<language>.epub**

> For example, **http://docs.fedoraproject.org/en-US/Fedora/14/pdf/Accessibility_Guide/Fedora-14-Accessibility_Guide-en-US.epub**

Note that the **<product_label>**, **<version_label>**, and **<name_label>** fields have no significance for URLs, even when these fields are suppressed in tables of contents by the **UNUSED** setting.

Sample spec file for desktop menu package

The following spec file is an example of how you could package a *desktop entry* (`.directory`) file and a *desktop menu* (`.menu`) file in an RPM package for shipping. Refer to Section 8.1.3, "Desktop menu entries for documents" for the structure of these files.

This example assumes a desktop entry file named **menu-example.directory**, a desktop menu file named **menu-example.menu**, and a readme file named **README** are located in a directory named **menu-example-0** that is archived as **menu-example-0.tgz**.

When built, this results in a package named menu-example.

```
Name:  menu-example
Version: 0
Release: 8%{?dist}.t1
Summary: Example of how to do a documentation menu package
Group:  Development/Tools
License: GPLv2+
URL:  http://engineering.redhat.com
Source0: %{name}-%{version}.tgz
BuildRoot: %{_tmppath}/%{name}-%{version}-%{release}-root-%(%{__id_u}
-n)
BuildArch:       noarch

%description
Example of how to do a documentation menu package

%prep
%setup -q

%build

%install
rm -rf %{buildroot}
mkdir -p $RPM_BUILD_ROOT%{_datadir}/desktop-directories
mkdir -p $RPM_BUILD_ROOT/etc/xdg/menus/settings-merged

install -m644 menu-example.directory $RPM_BUILD_ROOT%
{_datadir}/desktop-directories/menu-example.directory
install -m644 menu-example.menu $RPM_BUILD_ROOT%
{_sysconfdir}/xdg/menus/settings-merged/menu-example.menu

%{_fixperms} $RPM_BUILD_ROOT/*

%clean
rm -rf %{buildroot}

%files
%defattr(-,root,root,-)
%doc README
%{_datadir}/desktop-directories/menu-example.directory
%config(noreplace) %{_sysconfdir}/xdg/menus/settings-merged/menu-
example.menu
```

```
%changelog
* Tue Nov 23 2010 Jeff Fearn <jfearn@redhat.com> 0-8
- Creation
```

Language codes

Publican is an XML publication tool and therefore is designed to use the language codes — or *tags* — that the World Wide Web Consortium (W3C) designated in the XML specification.[5] These codes are defined in the Internet Engineering Task Force (IETF) document *BCP 47: Tags for Identifying Languages*.[6]

Language tags are built from one of more *subtags*, separated from one another by hyphens. In order of appearance within a language tag, these subtags are:

`language-script-region-variant`

BCP 47 also allows for considerable customization of language tags for special purposes through the use of *extension subtags* and *private-use subtags*. Extension subtags allow for finer-tuning of existing subtags, but must be registered with the IETF (none are currently registered). Private-use subtags are introduced by **x-** and do not need to be registered. Private-use subtags aside, a subtag is valid if it appears in the registry of subtags maintained by the IETF through the Internet Assigned Numbers Authority (IANA).[7] Although **Publican** will accept any language tag that is valid under the rules presented in BCP 47, it is designed around the assumption that language tags for documents will most usually take the form **language-region**. A brief description of subtags follows:

language subtag

The language subtag comprises two or more lower-case letters and is the only mandatory part of the language tag. For most widely spoken languages, the language subtag is a two-letter code identical with the language codes specified in ISO 639-1, [8] for example, **zh** (Chinese), **hi** (Hindi), **es** (Spanish), and **en** (English). Where no two-letter code exists in ISO 639-1, the language subtag is usually a three-letter code identical with the codes specified in ISO 639-2,[9] for example, **bal** (Balochi), **apk** (Kiowa Apache), and **tpi** (Tok Pisin). Finally, a small number of language subtags appear in the IANA registry that have no ISO 639-1 or

ISO 639-2 equivalent, such as subtags for the constructed languages **qya** (Quenya) and **tlh** (Klingon), and for the occult language **i-enochian** (Enochian). This last example also illustrates a small number of language subtags *grandfathered* into the registry that do not match the two-letter or three-letter pattern of codes derived from the ISO 639 standards.

> ### Extended language subtags
>
> *RFC 5646: Tags for Identifying Languages*[10] issued in September 2009 allows for *extended language subtags* to follow the language subtag. Extended language subtags are three-letter codes that represent languages that share a close relationship with a language already represented by a language subtag. For example, **yue** represents Cantonese, but this subtag must always be used with the language subtag associated with it (Chinese), thus: **zh-yue**. The IETF does not yet recognize RFC 5646 as "Best Common Practice", nor are these subtags part of the XML standard yet.

script subtag

The script subtag comprises four letters — the first one in upper case, the other three in lower case — and defines a writing system. These codes are identical with the four-letter codes specified in ISO 15924.[11] The script subtag is used to identify languages that are commonly written with more than one writing system; the subtag is omitted when it adds no distinguishing value to the language tag overall. For example, **sr-Latn** represents Serbian written with the Latin alphabet and **sr-Cyrl** represents Serbian written with the Cyrillic alphabet; **az-Arab** represents Azerbaijani written in Arabic script and **az-Cyrl** represents Azerbaijani written with the Cyrillic alphabet. Conversely, French should not be represented as **fr-Latn**, because French is not commonly written in any script other than the Latin alphabet anywhere in the world.

region subtag

The region subtag comprises either two upper-case letters (for regions that conform to national boundaries) or three digits (for other areas, such as trans-national regions). The two-letter subtags are identical with those from ISO 3166-1[12], for example, **AT** (Austria), **TZ** (Tanzania), and **VE** (Venezuela). The three-digit region subtags are based on those in UN M.49, [13] for example, **015** (Northern Africa), **061** (Polynesia), and **419** (Latin America and the Caribbean).

variant subtag

Variant subtags identify well-defined, recognizable variants of a language or script and can include upper-case letters, lower-case letters, and numerals. Variant subtags that start with a letter must be at least five characters long, and those that start with a numeral must be at least four characters long. Most variant subtags can only be used in combination with specific subtags or combinations of subtags. Variant subtags do not harmonize with any other standard; they are each the result of a separate registration with the IETF by an interested person or group.

Under the present standard, dialects of several languages are designated with variant subtags, for example, **nedis** denotes Nadiza (also known as Natisone), a dialect of Slovenian. This tag must be used in conjunction with the language subtag for Slovenian, thus: **sl-nedis**. In September 2009, the IETF issued a Request for

Comments (RFC) that (amongst other things) proposes that dialects be represented by language extension subtags attached to language subtags.[14]

Most variant subtags mark a particular orthography, most usually as a result of an official spelling reform or a significant work documenting the language. Examples (with their required language subtags) include: `fr-1606nicot` (French as documented by Jean Nicot in 1606), `de-1901` (German spelling codified by the 2nd Orthographic Conference in 1901) and `be-1959acad` (Belarusian as codified by the Orthography Commission in 1959).

Finally, some variant subtags denote a particular variant of a system of writing or transliteration. For example, `zh-Latn-wadegile` is Chinese written in the Latin alphabet, according to the transliteration system developed by Thomas Wade and Herbert Giles; `ja-Latn-hepburn` is Japanese written in the Latin alphabet using the transliteration system of James Curtis Hepburn.

Publican includes support for the following languages:

- ar-SA — Arabic
- as-IN — Assamese
- ast-ES — Asturian
- bg-BG — Bulgarian
- bn-IN — Bengali (India)
- bs-BA — Bosnian
- ca-ES — Catalan
- cs-CZ — Czech
- da-DK — Danish
- de-CH — German (Switzerland)
- de-DE — German (Germany)
- el-GR — Greek
- es-ES — Spanish
- fa-IR — Persian
- fi-FI — Finnish
- fr-FR — French
- gu-IN — Gujarati
- he-IL — Hebrew
- hi-IN — Hindi
- hr-HR — Croatian
- hu-HU — Hungarian
- id-ID — Indonesian

- is-IS — Icelandic

- it-IT — Italian

- ja-JP — Japanese

- kn-IN — Kannada

- ko-KR — Korean

- lv-LV — Latvian

- ml-IN — Malayalam

- mr-IN — Marathi

- nb-NO — Norwegian (Bokmål orthography)

- nl-NL — Dutch

- or-IN — Oriya

- pa-IN — Punjabi

- pl-PL — Polish

- pt-BR — Portuguese (Brazil)

- pt-PT — Portuguese (Portugal)

- ru-RU — Russian

- si-LK — Sinhalese

- sk-SK — Slovak

- sr-Cyrl-RS — Serbian (Cyrillic script)

- sr-Latn-RS — Serbian (Latin script)

- sv-SE — Swedish

- ta-IN — Tamil

- te-IN — Telugu

- th-TH — Thai

- uk-UA — Ukrainian

- zh-CN — Chinese (People's Republic of China, implicitly simplified Han script)

- zh-TW — Chinese (Republic of China, implicitly traditional Han script)

---

[5] http://www.w3.org/TR/REC-xml/#sec-lang-tag

[6] http://tools.ietf.org/html/bcp47

[7] http://www.iana.org/assignments/language-subtag-registry

[8] http://www.infoterm.info/standardization/iso_639_1_2002.php

[9] http://www.loc.gov/standards/iso639-2/

[10] http://tools.ietf.org/html/rfc5646

[11] http://www.unicode.org/iso15924/

[12] http://www.iso.org/iso/country_codes.htm

[13] http://unstats.un.org/unsd/methods/m49/m49.htm

[14] http://tools.ietf.org/html/rfc5646

Revision History

Revision 4.2-0   **Mon May 12 2014**   **Jeff Fearn**
Convert to DocBook 5
Update a lot of content

Revision 4.0-5   **Thu Mar 27 2014**   **Rüdiger Landmann**
Corrections to website building instructions

Revision 4.0-4   **Mon Nov 25 2013**   **Rüdiger Landmann**
Improve instructions for translation BZ#1021287
Document use of "sortas" for indexes and glossaries

Revision 4.0-3   **Thu Nov 14 2013**   **Roman Joost**
Clarify where relative paths are used in brand instructions - BZ#1028815

Revision 4.0-2   **Thu Nov 14 2013**   **Norman Dunbar**
Corrected OpenSUSE installation instructions - BZ#1000534

Revision 4.0-1   **Thu Nov 14 2013**   **Svein Dowdeit**
Updated Debian installation instructions - BZ#1013934
Add Docker installation instructions - BZ#1015943

Revision 3.2-1   **Thu Jul 11 2013**   **Zac Dover**
Added command prompts to all commands - BZ#880456
Added quotes around the web_formats list - BZ#839141
Replaced a broken link to kate plugins page on CPAN with a working link - BZ#973461
Updated web site instructions - BZ#979224

Revision 3.2-0   **Thu Jul 11 2013**   **Jeff Fearn**
Publican 3.2.0
Document site config option 'toc_js'
Document build option --pdftool
Document build option --pub_dir

Revision 3.1-0   **Tue Jan 8 2013**   **Norman Dunbar**
Add Section on Installing Publican on OpenSuse 12

Revision 3.0-0   **Mon Feb 20 2012**   **Jeff Fearn**
Publican 3.0

Revision 2.7-1   **Tue Sep 6 2011**   **Rebecca Newton**
Improve documentation of standalone <set> usage

Revision 2.6-1   **Mon Jul 18 2011**   **Rüdiger Landmann**

Document new manual_toc_update parameter -- BZ#719573
Document new update_db action -- BZ#661948
Document new rename action -- BZ#694698
Document new mainfile parameter -- BZ#688585
Include advice about multiple config files for conditionalised books -- BZ#657132
Fix broken command example -- BZ#663211
Incorporate proofreading fixes from Luigi Votta **lewis41@fedoraproject.org**
BZ#657576, BZ#663399

Revision 2.4-1   **Wed Dec 1 2010**   **Rüdiger Landmann**
Incorporate proofreading fixes from Luigi Votta **lewis41@fedoraproject.org**
BZ#657576
Document not shipping PDFs in known broken languages
Document the web_formats parameter
Document customising desktop menus
Document site_overrides.css

Revision 2.3-0   **Mon Oct 25 2010**   **Rüdiger Landmann**
Document website dump files
Document bump command
Update image width behaviour

Revision 2.3-0   **Tue Oct 5 2010**   **Rüdiger Landmann**
Update lang_stats to include multiple languages
Correct details for web_logo.png BZ#638153
Correct list of characters usable in product names and document titles
Document new web_type parameter and relocate web_host and web_search parameters to
site config file
Describe OPDS catalogs
Document product and version pages
Document man page as an output format
Document bridgehead_in_toc parameter
Correction -- def_langs is a site config parameter, not a homepage config file parameter

Revision 2.2-0   **Thu Aug 19 2010**   **Rüdiger Landmann**
Expand on including code samples BZ#604255
Clarify clean_ids BZ#612819
Document --novalid BZ#616142

Revision 2.1-1   **Fri Jul 16 2010**   **Rüdiger Landmann**
Correct and clarify website instructions BZ#614259
Clarify use of Product-Version-Id for packaging

Revision 1.6-1   **Mon May 24 2010**   **Rüdiger Landmann**
Update Ubuntu installation instructions

Revision 1.6-0   **Fri May 7 2010**   **Rüdiger Landmann**
Revise action and option nomenclature
Document print_known, print_banned, and print_unused actions
Correct and expand documentation on installing a brand
Document max_image_width and confidential_text parameters
Document Eclipse help plugin format and supporting parameters

Revision 1.5-0   **Fri Feb 26 2010**   **Rüdiger Landmann**

Document --config option

Revision 1.4-0   **Wed Feb 17 2010**   **Jeff Fearn**

remove obsolete reference to path to the DocBook catalog files. BZ#565498.
document CVS options.

Revision 1.3-0   **Mon Dec 7 2009**   **Rüdiger Landmann**

Add an FAQ entry about code highlighting errors.
Add a section about valid formats.
Update author list.
More specific installation instructions for Ubuntu; add installation instructions for Debian.
BZ#542711
Metadata in the Book_Info.xml file

Revision 1.2-0   **Fri Nov 27 2009**   **Jeff Fearn**

Document lang_stats action. BZ#540696.

Revision 1.1-1   **Thu Nov 26 2009**   **Jeff Fearn**

Fix wrong docs for condition usage. BZ#540691

Revision 1.1-0   **Thu Oct 22 2009**   **Rüdiger Landmann**

Fix various small inconsistencies and general clean up

Revision 1.0-0   **Tue Oct 13 2009**   **Rüdiger Landmann**

Updated for Publican 1.0

Revision 0.5-0   **Thu Dec 18 2008**   **Jeff Fearn**

Added appendix on Makefile parameters
Added entry to FAQ about java heap space.

Revision 0.4-0   **Tue Nov 25 2008**   **Brian Forté**

Added "Pre-release and draft documentation" section.

Revision 0.3-0   **Fri Oct 10 2008**   **Don Domingo**

Adding "Conditional Tagging" section.

Revision 0.2-0   **Fri Sep 05 2008**   **Brian Forté**

General edits and updates related to Publican 0.36 release. Also, new section added to
Chapter 3.3.

Revision 0.1-1   **Fri Jun 06 2008**   **Murray McAllister**

Updated Branding to note addition of oVirt and GIMP brands

Revision 0.1-0   **Fri May 16 2008**   **Jeff Fearn**

Updated FAQ

Revision 0.0-0   **Thu Dec 13 2007**   **Murray McAllister**

Initial content release