

# **User Guide**

**Edited by Tanja Roth**

**Technical review: Thomas Schraitle, Frank Sundermeyer**

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# About This Guide

The DocBook Authoring and Publishing Suite (DAPS) is an open-source authoring and publishing environment for DocBook XML. It is command-line oriented and can be used on Linux operating systems. It consists of integrated tools that support technical writers in the editing, translation and publishing process of their XML documents.

## Target Audience

This document is intended for users who want to make efficient use of DocBook-XML for editing and publishing their documentation—be it documentation sets, individual books, or articles. Key knowledge of XML and DocBook is required, as well as key knowledge of using the Bash Shell (or command line interfaces in general).

## Available Documentation

This guide contains links to additional documentation resources. The following manuals are available for DAPS:

User Guide

Comprehensive guide for end-users. It guides you through creating, editing, managing and publishing your DocBook documents with DAPS—be it a short article by a single author or larger documentation projects, written by multiple authors, including translation processes and handling multiple variants of a document.

DAPS Quick Start

Short introduction to DAPS for end-users. Includes step-by-step instructions for the key tasks in editing and publishing DocBook documents.

## Feedback

We want to hear your comments and suggestions about DocBook Authoring and Publishing Suite (including this guide and the other documentation included with the DAPS). Patches and user contributions are welcome!

Join our mailinglist `daps-general` for general discussions and technical support. A user account at [sourceforge.net](https://sourceforge.net) is needed.

For bugs or enhancement requests, please open a ticket at <https://sourceforge.net/p/daps/tickets/add>. A user account at [sourceforge.net](https://sourceforge.net) is recommended for this, but you may also open tickets anonymously.

Patches and user contributions are welcome!

## Documentation Conventions

The following typographical conventions are used in this manual:

- `/etc/passwd`: directory names and filenames
- *placeholder*: replace *placeholder* with the actual value

- `PATH`: the environment variable `PATH`
- `ls, --help`: commands, options, and parameters
- `user`: users or groups
- **Alt**, **Alt+F1**: a key to press or a key combination; keys are shown in uppercase as on a keyboard
- File, File+Save As: menu items, buttons
- *Dancing Penguins* (Chapter *Penguins*, ↑Another Manual): This is a reference to a chapter in another manual.

## About the Making of This Document

This documentation is written in DocBook (see <http://www.docbook.org>) and edited and generated with the open-source tools provided by the DocBook Authoring and Publishing Suite. The XML source files were validated by **xmllint**, processed by **xsltproc**, and converted into XSL-FO using a customized version of the DocBook stylesheets. The final PDF is formatted through FOP.

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# Chapter 1. Conceptual Overview

The DocBook Authoring and Publishing Suite (DAPS) is developed as open source software for Linux operating systems, licensed under the GPL. A number of integrated tools, stylesheets, scripts, and makefiles help technical writers in the editing, translation and publishing process. DAPS supports single source publishing into a number of different output formats, and is suited both for small documentation projects as well as for comprehensive projects, created by multiple authors in a collaborative effort.

## Supported DocBook Versions

Currently, DAPS supports only DocBook 4.x. Support for DocBook 5.x is planned for version 2.0.

## System Requirements

RAM, Hard Disk Space, CPU

DAPS is a lean solution that does not require a lot of system resources. The disk space consumed mostly depends on the amount of your documentation sources and the number of output formats you want to generate. If you have multiple or very large documentation projects, a machine with multiple-cores is recommended, but is not required.

Software

In addition to DAPS, you need the following software:

- An XML (or text) editor of your choice.
- For generating PDF output: an FO formatter, like FOP (open source, Apache) or XEP (commercial, RenderX). Antenna House Formatter (commercial) is currently not supported.

When installing DAPS as an RPM package (on any SUSE-based system), dependencies on other software packages are automatically resolved during installation. For installing DAPS on other Linux distributions with `configure`, `make`, and `make install`, make sure the following packages or tools are installed on your system:

- automake
- convert (included in the ImageMagick package)
- DocBook 4
- DocBook 4 Stylesheets (usually a separate package)
- make
- xmlcatalog (usually part of the package `libxml2`, `libxml-utils`, or `libxml-tools`)
- xmllint (usually part of the package `libxml2`, `libxml-utils`, or `libxml-tools`)



- `xsltproc` (if not available as a separate package, it may be included in `libxslt`)

#### Directory Structure

For DAPS to work out of the box, it requires a certain organization of your XML files and images within your documentation directory. You can generate the necessary structure with the DAPS initialization script, **daps-init**.

## Additional Software

To add further components like version management or a workflow mechanism for your projects, use DAPS in combination with the following software:

- Any version management system, like CVS, Subversion, Mercurial or Git.
- Docmanager, a command-line tool for adding and retrieving meta-information for all files belonging to a documentation project. Docmanager is especially useful for larger, collaborative projects where it helps you to keep track of owners (authors) and editing status of all files. However, Docmanager requires to host your documentation files on a Subversion server.

Together with the software components mentioned above, DAPS can be used as a fully-fledged authoring and content management system for documentation projects based on DocBook.

## Key Features

DAPS supports technical writers in the editing, translation and publishing process of DocBook XML files:

#### Output Formats

DAPS lets you publish your XML sources in the following output formats: HTML, HTML-single, PDF, ePub, text, man pages, JSP books or MediaWiki. For details, refer to Chapter 5, *Generating Output Formats*.

#### Custom Layouts

By default, DAPS uses the DocBook stylesheets to generate the output formats. But DAPS also supports custom layouts for your documentation projects (or for individual books within your set).

Apart from that, DAPS allows you to change individual layout parameters by passing string parameters to `xsltproc` for HTML or PDF builds —without even touching the stylesheets. For details about custom layouts, refer to Chapter 7, *Customizing Layout of the Output Formats*.

#### Editor Macros

For Emacs, DAPS includes a set of macros for easy insertion of complex DocBook elements like `variablelist`, `figure`, `table` or `indexterm`. Instead of inserting the child elements successively, you will get a “skeleton” that includes all required child elements and is ready to be filled with contents. For details, refer to Chapter 4, *Editing DocBook-XML*.

#### Validating

Validating XML files within in a book or set exceeds validation of the current XML file, as links (`xref` elements) or `XIncludes` need to be resolved, too. With DAPS, you can check validity of all files

	that belong to a documentation project with a single command. For details, refer to Chapter 4, <i>Editing DocBook-XML</i> .
Spell Check	DAPS supports spell checking of your XML sources with aspell from the command line. Depending on the XML editor you use, you can also integrate a custom aspell dictionary into your editor. For details, refer to Chapter 4, <i>Editing DocBook-XML</i> .
Link Checker	To make sure that all links in your XML sources are still available (and do not give a 404 error or similar), DAPS also includes a link checker (based on checkbot). Use it to create a report of all links that caused some kind of warning or error. For details, refer to Chapter 4, <i>Editing DocBook-XML</i> .
Image Handling	DAPS provides sophisticated image handling support. For example, it can transform images referenced in your XML files into different formats, list all source images referenced in your XML files, list any missing images or list the <i>generated</i> images used for the various output formats. You can also forward those lists to your preferred image viewer to conveniently browse through the images, or check if all image names are unique. For details, refer to Chapter 4, <i>Editing DocBook-XML</i> and Chapter 9, <i>Advanced DAPS Use</i> .
Profiling (Conditional Text)	If you have similar products to document and want to generate multiple documentation variants from your XML files, you can do so with the help of conditional text (or <i>profiling</i> , as it is called in DocBook). For example, you can profile certain parts of your XML texts for different (processor) architectures, operating systems, vendors or target groups. Use the PROF* keys defined in <code>/etc/daps/config</code> to define which information should be included in the output. For details, refer to Chapter 9, <i>Advanced DAPS Use</i> .
Dynamic Product Names and Numbers	DAPS allows to set product name and product number dynamically. This enables you to use the same XML sources for different products. If you use the entities <code>&amp;productname</code> ; and <code>&amp;productnumber</code> ; in your XML sources, DAPS will automatically use the values defined in the <code>productname</code> and <code>productversion</code> elements within the <code>bookinfo</code> or <code>articleinfo</code> . For details, refer to Chapter 9, <i>Advanced DAPS Use</i> .
Review and Translation Processes	DAPS offers a numbers of features to simplify review and translation processes. For example, you can insert <code>remark</code> elements in the source code and generate an output format that either includes or suppresses these remarks. You can also generate preview versions of your documentation with a DRAFT watermark appearing on the HTML or PDF output. If you use Docmanager in addition to DAPS, you can “flag” your XML files with meta-information (like workflow status). DAPS offers an option to also display this meta-information in the generated output. For handing over your files to review or translation, DAPS can create tarballs of the XML sources and graphics. Alternatively, transform all files included in your <code>book</code> or <code>set</code> into an XML bigfile.

### Packaging and Deployment

For deploying the documentation as RPM packages and integrating it into KDE and GNOME desktop environments as well as into Web user interfaces (via JSP), DAPS offers a number of options to produce the corresponding output: For example, you can create source packages, HTML tarballs, color PDFs and desktop and document files with the **daps package-\*** commands.

## DAPS Configuration

DAPS can be customized to a large degree by setting options in various places:

- `/etc/daps/config` (system-wide configuration file)
- `~/.daps/config` (user-specific configuration file)
- DC (doc config) file of the documentation project (for settings specific to a document or documentation set)
- on the fly at the command line by specifying options to a **daps** command.

The configuration file `/etc/daps/config` lists all settings that can be configured, including a short description for each option. Settings are always defined as `KEY="VALUE"` pairs.

## Defining Documentation Projects

The following files are the key files for defining a documentation project so that it can be processed by DAPS:

### Main File

An XML file containing the “starting point” (the highest-level object) of your documentation project (for example, `book` or `article`). For larger documentation projects, it is good practice to name the file `MAIN-PROJECTNAME.xml`, but you can use any other file-name as well.

### DC (Doc Config File)

A configuration file defining a number of parameters for your documentation project (like the Main file, layout variants, or which profiling information to use).

## Main File

Find a simple example in Example 1.1, “Main File of a Book (DocBook 4.x)”.

**Example 1.1. Main File of a Book (DocBook 4.x)**

```
<?xml version="1.0" encoding="UTF-8"?>
[...]

<book id="book.template" lang="en">
  <bookinfo>
    <title>Book Template</title>
    <subtitle>generated by daps</subtitle>
    <productname>Book Template</productname>
    <legalnotice>
      <para>
        <ulink url="http://www.gnu.org/licenses/fdl-1.3-standalone.html">
          GNU Free Documentation License</ulink>
        </para>
      </legalnotice>
    </bookinfo>
    <chapter id="cha.template.examples">
      <title>Examples: the most commonly used DocBook XML constructs</title>
      <abstract>
        <para>
          You may use this file as a template. for a complete reference on DocBook
          see <citetitle>&tdg;</citetitle> at <ulink
            url="http://www.docbook.org/tdg/en/html/docbook.html"/>.
        </para>
      </abstract>
      <para>
        I am a paragraph in a chapter.
      </para>
      <sect1 id="sec.template.examples.lists">
        <title>Lists</title>
        <para>
          This is a section 1.
        </para>
      </sect1>
    </chapter>
  </book>
```

If your documentation project consists of multiple books in a `set`, the main file is the one that contains the `set` element. In the following example, the components of the set (individual books) are not part of the Main file, but have been put into separate document files (`book*.xml`), that are then assembled in the Main file using `XIncludes`. Note that this is not specific for a set but mainly a means of modularizing your documents. You can use the same modularization for books by splitting them into individual chapters files (or split chapters into a number of section files).

**Example 1.2. Main File of a Set (DocBook 4.x)**

```
<?xml version="1.0" encoding="UTF-8"?>
[...]
```

```
<set lang="en">
  <title>openSUSE Documentation</title>
  <xi:include href="book_opensuse_startup.xml" xmlns:xi="http://www.w3.org/2001/XIn
  <xi:include href="book_opensuse_reference.xml" xmlns:xi="http://www.w3.org/2001/X
  <xi:include href="book_security.xml" xmlns:xi="http://www.w3.org/2001/XInclude"/>
  <xi:include href="book_tuning.xml" xmlns:xi="http://www.w3.org/2001/XInclude"/>
  <xi:include href="book_kvm.xml" xmlns:xi="http://www.w3.org/2001/XInclude"/>
</set>
```

## DC (Doc Config File)

Of the multiple parameters that can be set in the DC file, the only one required is *MAIN*, pointing to the XML file that you want to process. Suppose you want to publish a whitepaper from DocBook XML with the default DocBook stylesheets, the following example shows a very basic DC file that you could use:

**Example 1.3. A Very Basic DC File**

```
## -----
## Doc Config File for DAPS (very basic)
## DocBook Authoring and Publishing Suite
## -----
##
## Basics
MAIN="my_whitepaper.xml"
```

The example above is a bit artificial though—if you do not want to specify any further parameters, you can also set the *MAIN* parameter on the command line and do completely without DC.

For a documentation set (a collection of books), multiple DC files can be defined. This allows you to set both different parameters or different values for individual books in the set: For example, by referring a different *ROOTID* in a DC file, you define which book of the set is to be built. Another example would be to specify different output modes (such as draft or annotated) for individual books in the same documentation set.

The following example shows the DC file of the DAPS User Guide.

### Example 1.4. DC File For a Book in a Set

```
## -----
## Doc Config File for DAPS (used for a book in a set)
## DocBook Authoring and Publishing Suite
## -----
##
## Basics
MAIN="MAIN.DAPS.xml" ❶
ROOTID="book.daps.user" ❷

## enable sourcing
export DOCCONF=$BASH_SOURCE ❸
```

- ❶ Mandatory parameter. Sets the main file that contains “references” to other books, chapters, appendices, etc.
- ❷ Optional parameter. Defines the root ID of the element to be used for creating an output format. Usually, you define the root ID of a `book` or `article` element here.
- ❸ Optional line. You only need to add this line if you want to be able to source DC files on the Bash with DAPS. Sourcing a DC file (formerly called ENV file) was necessary to work with the documentation environment provided by susedoc (DAPS' predecessor).

If your documentation set contains cross-references between the individual books, it is useful to define an additional DC file (*without* the `ROOTID` parameter). Use this DC file to generate an HTML output containing all hyperlinks between the individual books. Find an example DC file in Example 1.5, “DC File for a Set”.

### Example 1.5. DC File for a Set

```
## -----
## Doc Config File for DAPS
## DocBook Authoring and Publishing Suite
## -----
##
## Basics
MAIN="MAIN.DAPS.xml"

## enable sourcing
export DOCCONF=$BASH_SOURCE
```

## Directory Structure

For DAPS to work out of the box, your XML files and images should be organized within your documentation directory (`DOC_DIR`) as shown in `FIXME`.

## Structure Created by DAPS

When generating the first output format from your documentation project, DAPS adds another directory that holds the generated contents. It is named `build` (if not set otherwise in `/etc/daps/config`, parameter `BUILD_DIR`), and is created in your documentation directory, parallel to the `xml` and `images` subdirectory.

The `build` directory is structured as follows:

### Example 1.6. Build Directory

```
YOUR_DOC_DIR ❶  
|--build ❷  
|  |--NAME_OF_DC1 ❸  
|  |--NAME_OF_DC2 ❸  
|  |--.images ❹  
|  |--.profiled ❺  
|  |--.tmp ❻
```

- ❶ “Working directory” for the respective documentation project.
- ❷ Directory that holds all contents build by DAPS.
- ❸ For each of your documentation projects, DAPS creates a subdirectory, named after the respective DC from which you build the project. All formats that have been generated from the DC (PDF, HTML, TXT, ePUB etc.) can be found there. A `log` subdirectory stores log files for each output format that has been generated by DAPS.
- ❹ Directory holding the images created by DAPS.
- ❺ Directory holding the profiled XML sources created by DAPS.
- ❻ Directory holding temporary files created by DAPS (for example, the FO files).

## Creating a New Documentation project from Scratch

DAPS also contains the script **daps-init** for creating a new documentation project from scratch. When using that script, the directory structure is automatically set up and an example DC file is automatically created.

---

# Chapter 2. Installing DAPS

The DocBook Authoring and Publishing Suite can be installed and used on any Linux distribution. Because DAPS was originally developed by the SUSE documentation team for managing their documentation projects, it is available as RPM package for the openSUSE distribution (and the SUSE Linux Enterprise products based on openSUSE). Eventually, RPM packages for further distributions may become available. In the meantime, you can download a tarball with the DAPS sources and install them on any distribution with `configure`, `make`, and `make install`.

## Installing DAPS on openSUSE

For openSUSE, the `daps` package is available from the `Documentation:Tools` repository at <http://download.opensuse.org/repositories>. For the complete path to the repository, you need to add the version number of your openSUSE installation. For example, the complete repository URL for openSUSE 12.1 would be: [http://download.opensuse.org/repositories/Documentation:/Tools/openSUSE\\_12.1/](http://download.opensuse.org/repositories/Documentation:/Tools/openSUSE_12.1/)

For basic details on how to add software repositories and how to install software on openSUSE, refer to the openSUSE *Reference Guide*. The guide is part of the openSUSE documentation and available from <http://www.suse.com/documentation>.

Choose one of the following installation methods:

- |  |   |
|--|---|
| 1-Click Installation from the Internet         | Follow the instructions in the openSUSE <i>Reference Guide</i> , chapter <i>Installing Packages from the Internet</i> . Search for the <code>daps</code> package that matches your openSUSE version. From the listed results, install the package that is provided by the repository <code>Documentation:Tools</code> . |
| Installation with YaST (GUI)                   | Follow the instructions in the openSUSE <i>Reference Guide</i> , chapter <i>Installing Or Removing Software</i> . Add the <code>Documentation:Tools</code> repository that matches your openSUSE version—see the introduction to this section. From this repository, install the <code>daps</code> package.             |
| Installation with <b>zypper</b> (command line) | Follow the instructions in the openSUSE <i>Reference Guide</i> , chapter <i>Managing Software with Command Line Tools</i> . Add the <code>Documentation:Tools</code> repository that matches your openSUSE version—see the introduction to this section. From this repository, install the <code>daps</code> package.   |

All of the installation methods above automatically resolve any dependencies to other packages that are required by DAPS.

## Installing DAPS on Other Linux Distributions

For installation on other Linux distributions, the DAPS sources are available as tarball. They can be installed with `configure`, `make`, and `make install`.

### Procedure 2.1. Installing the DAPS Sources

Before starting the installation, check the DAPS system requirements and make sure to have all required packages and tools installed.



1. Download the DAPS source tarball from <http://daps.sourceforge.net>.
2. Create a new directory in your file system and unpack the tarball there:
3. Change to the newly created directory and start the configure script:

```
./configure
```

The script checks your system for any software relevant to DAPS or the DAPS installation process. It also creates a makefile that will be used during installation. Based on the analysis, the script shows a summary that includes the following information:

- the DAPS installation paths,
- an overview of DAPS features that will be available on your system if you install DAPS now, and
- which software is still missing to enable the remaining daps features as well.

4. Check the summary carefully.
5. Install missing packages, if necessary. After installing new packages, repeat Step 3 and check the summary again.
6. If you want to adjust the DAPS installation paths, check which options are available:

```
./configure --help
```

To create a makefile with custom installation paths, run the configure script with the desired option.

7. If everything is prepared according to your wishes, enter:

```
make
```

8. To start the installation process, enter:

```
make install
```

---

# Chapter 3. Creating a Project From Scratch

The easiest way to set up a new documentation project from scratch is to use **daps-init**. This initialization script automatically creates the key files and directory structure you need to get started with DAPS.

It generates:

- the Directory Structure required by DAPS,
- an example DC (Doc Config File), and
- an example Main File that you can use as a starting point for your documentation.

By default, the initialization script creates a `book` as example document. With the `-r` option, you can also set another root element, such as `article`, for example.

1. To create the default directory structure (containing an example `book`), enter the following on a command line:

```
daps-init -d PATH_TO_DIRECTORY
```

Alternatively, enter the following to create the default directory structure with an `article` example:

```
daps-init -d PATH_TO_DIRECTORY -r article
```

2. If the specified directory does not exist, DAPS asks if to create it. Proceed by pressing `y`.
3. Check your working directory for the new files: The text file `DC-daps-example` is annotated and gives you a rough idea which options can be defined in a DC file. For having a look at the XML source code of the `book` or `article`, change to the `xml` subdirectory and open the file `MAIN-DC-daps-example.xml` in a text or XML editor.
4. To see what the output of the XML example file looks like, follow the instructions printed by the initialization script. For example, enter:

```
daps -d PATH_TO_DIRECTORY/DC-daps-example color-pdf
```

This command specifies the `DC*` file to use for the document and the output format to create. For creation of the PDF, DAPS uses FOP by default (if no other formatter is specified) and applies the default DocBook stylesheets (if no custom layout options are defined). Find the generated PDF in your documentation directory in `/build/daps-example/daps-example_en.pdf`.

This was only a brief introduction to the most basic DAPS features. In the following chapters, learn how DAPS can support you in editing, managing images and creating more output formats than just PDF or HTML.

---

# Chapter 4. Editing DocBook-XML

As DAPS does not include any editor software, you are completely free in the choice of your XML editor. Basically, you can use any text editor, but it is helpful if the editor supports editing XML in accordance with the DTD you use. A number of open source editors can be extended with plug-ins for automatic tag insertion and completion, insertion of `xref` elements and for checks if the XML document is well-formed. If you are already familiar with `vi` or `Emacs`, you can configure them to support XML editing mode. If you prefer an editor with a graphical user interface, `jEdit` is a good choice.

## Basic Structural Elements

If you already worked with DocBook, you know about the typical top-level elements (or root elements) for documents: `book` or `article`. For larger documentation projects, another typical root element is `set` (a collection of books).

To define the individual components of a book, other structural elements are used, for example, `part`, `chapter`, or `appendix`. Within a chapter, you will probably also find sections, thus `section` (or `sect1`, `sect2` etc.) are further structural elements, as are `para` (for paragraphs) or `orderlist`.

If you have set up your documentation project from scratch with **daps-init**, you can explore the example documents that are installed within the directory structure. They show the most commonly used DocBook XML constructs.

## Macros for Automatic Insertion of Complex Elements

XML elements can be nested to a high extend. Some constructs like `variablelist`, `table` or `image` have a lot of required child elements. If you have an editor with DTD support, it will tell you which elements are allowed at the current cursor position, but nevertheless it is cumbersome if you need to insert the child elements of complex XML constructs consecutively.

Most editors allow you to define or record macros which you can use for automatically inserting empty “skeletons” for a complex XML construct as illustrated by Example 4.1, “A `varlistentry`”.

### Example 4.1. A `varlistentry`

```
<varlistentry>
  <term></term>
  <listitem>
    <para></para>
  </listitem>
</varlistentry>
```

For Emacs, DAPS already includes macros for adding elements such as `listitem`, `figure`, `indexterm` etc. The macros are defined in `docbook_macros.el` and are added to your system during the installation of DAPS. They require that you execute Emacs in `psgml-mode`.

**Procedure 4.1. Configuring Emacs to Use the DB Macros**

1. To load the DocBook macros, open your Emacs customization file (`~/.emacs` or `~/.gnu-emacs`).
2. Insert the following line:

```
(load "/usr/share/emacs/site-lisp/docbook_macros.el" t t)
```

3. Save the Emacs customization file.

For an overview, which macros are available and how to use them, refer to [http://en.opensuse.org/openSUSE:Documentation\\_Emacs\\_Docbook\\_Macros](http://en.opensuse.org/openSUSE:Documentation_Emacs_Docbook_Macros).

## Validating Your XML Sources

Validating XML files within in a book or set often exceeds validation of the current XML file, as links (`xref` elements) or `XIncludes` need to be resolved, too. If you use conditional text (`profiling`) in your XML sources (for creating variants), your XML editor cannot check validity of your XML files. However, DAPS can handle all those cases due to the built-in `xmllint` validator.

**Procedure 4.2. Validating XML Files**

To validate all files that belong to your documentation project, DAPS only needs to know which Doc Config file to use. If you have specified a value for `DOCCONF_DEFAULT` in `~/.daps/config` or if your documentation directory contains only one DC file, DAPS automatically uses the corresponding DC file. Otherwise, specify the path to the DC file with the `-d` option as described below.

By default, `remark` elements and XML comments are ignored during validation. However, if you intend to create a (draft) output including remarks or comments, you need to include them for validation by specifying the respective DAPS option.

1. To validate all XML files in your book, article or set, enter:

```
daps -d PATH_TO_DC_FILE validate
```

If the XML files are not valid, DAPS will return the parser errors. They include information about the type of error, the respective file name and the line number where the error occurred. In addition, DAPS shows the path to the profiled XML sources and the total number of errors.

If validation was successful, DAPS returns: `All files are valid.`

2. To validate your files including remarks, enter:

```
daps -d PATH_TO_DC_FILE validate -r
```

3. To validate your files including XML comments, enter:

```
daps -d PATH_TO_DC_FILE validate -c
```

### **Example 4.2. Parser Output For Validation Errors**

```
daps_user_concept.xml:60: element xref: validity error : IDREF attribute linkend r
Document /local/svn/daps-svn/daps/doc/build/.profiled/x86-amd64-em64t_osuse_/MAIN.
make: *** [validate] Error 3
```

## **Spell Checking**

---

# Chapter 5. Generating Output Formats

DAPS supports a number of different output formats, including also “exotic” formats like man pages or simple text. Generating any output requires that your XML files are well-formed and can also be validated. You can build several output formats in parallel, build your complete documentation project (set, book, or article) or only a part of it (for example, a specific chapter). If you want the output format to contain meta-data about the XML files (for example, file name or workflow status), to include `remark` elements or to be marked as a `draft` version, you can tell DAPS to do so by specifying options on the command line. By default, DAPS uses the regular DocBook stylesheets, but DAPS also allows you to customize your output formats in a very flexible way.

## Supported Output Formats

DAPS currently lets you publish your XML sources in the following output formats:

- PDF
- HTML
- HTML-single
- ePUB
- text
- man page
- Web Help

The number of output formats may be extended in the future, depending on the output formats that are supported by DocBook stylesheets. For an overview of the available output formats, run **daps --help** and have a look at the subsection in *Subcommands* that is entitled *Generate Books*.

## Basic Syntax

---

# Chapter 6. Image Handling

Depending on the output format you generate with DAPS (PDF or HTML for example), the source images you provide and reference in your XML sources can automatically be transformed into different output formats (from SVG to PNG for example). This section describes the basic things you need to know for using images (supported formats, where to store the images in your documentation directory, and how to reference them). For the more advanced image handling features (like listing images referenced in your XML files or the one used for output formats, list any missing images or checking for unique image names), refer to Chapter 9, *Advanced DAPS Use*.

## Supported Image Types

DAPS supports the following types of images:

- DIA
- EPS (experimental)
- FIG
- PDF (experimental)
- PNG
- SVG

## Location of the Images

DAPS requires a certain directory structure for your XML sources and for your images that you want to reference there. For details, refer to Directory Structure. Depending on the file type of your source images, add them to the respective subdirectories in *YOUR\_DOC\_DIR/images/src*.

### Unique Image Names

The base names of your images need to be unique throughout the image subdirectories. For example, using *images/svg/AAA.svg* and *images/svg/AAA.png* will not work. The name in front of the file extension needs to be different, for example: *images/svg/AAA.svg* and *images/svg/BBB.png*.

## Referencing Images

Provided your images are located in the required default directory, DAPS automatically finds the path to your images. Therefore referencing images in your XML sources is very straightforward: you do not need to include any path in the *fileref* attribute—the file name is enough.

Furthermore DocBook allows you to insert more than one image to distinguish between different target formats. For example, you can add two images pointing to the same file, but with different widths. Use the *role* attribute and add the name of the target format (*fo*, *html*, etc.) See Example 6.1, “Image Reference in an XML File”.

**Example 6.1. Image Reference in an XML File**

```
<figure>
  <title>Main Window</title>
  <mediaobject>
    <imageobject role="fo">
      <imagedata fileref="screenshot.png" width="70%"/>
    </imageobject>
    <imageobject role="html">
      <imagedata fileref="screenshot.png" width="75%"/>
    </imageobject>
  </mediaobject>
</figure>
```



---

## **Chapter 7. Customizing Layout of the Output Formats**

---

## **Chapter 8. Customizing/Configuring DAPS**

---

## **Chapter 9. Advanced DAPS Use**

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## Chapter 10. Troubleshooting

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# Glossary

Conditional Text	See Profiling.
Document Type Definition	
DOCTYPE Declaration	
DocBook Authoring and Publishing Suite	
DocBook	
Entity	
Formatter	
FO	See Also Formatter.
Portable Document Format	
Processing Instruction	
Profiling	
Scalable Vector Graphics	
Stylesheet	
Validation	
XInclude	
XML Catalog	
XML Parser	
Extensible Markup Language	
Extensible Stylesheet Language	See Also Extensible Stylesheet Language for Transformations, FO.
XSL-FO	See Also Extensible Stylesheet Language for Transformations, FO.
Extensible Stylesheet Language for Transformations	

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```

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