

NAME

a2x – A toolchain manager for AsciiDoc (converts AsciiDoc text files to other file formats)

SYNOPSIS

a2x [*OPTIONS*] *SOURCE_FILE*

DESCRIPTION

A DocBook toolchain manager that translates an AsciiDoc text file *SOURCE_FILE* to PDF, EPUB, DVI, PS, LaTeX, XHTML (single page or chunked), man page, HTML Help or plain text formats using *asciidoc(1)* and other applications (see REQUISITES section). *SOURCE_FILE* can also be a DocBook file with an .xml extension.

OPTIONS

-a, --attribute=ATTRIBUTE

Set *asciidoc(1)* attribute value (shortcut for **--asciidoc-opts="--a ATTRIBUTE"** option). This option may be specified more than once.

--asciidoc-opts=ASCIIDOC_OPTS

Additional *asciidoc(1)* options. This option may be specified more than once.

--conf-file=CONF_FILE

Load configuration file. See CONF FILES section.

-D, --destination-dir=DESTINATION_DIR

Output directory. Defaults to *SOURCE_FILE* directory. This option is only applicable to HTML and manpage based output formats (*chunked*, *epub*, *htmlhelp*, *xhtml*, *manpage*).

-d, --doctype=DOCTYPE

DocBook document type: *article*, *manpage* or *book*. Default document type is *article* unless the format is *manpage* (in which case it defaults to *manpage*).

-b, --backend=BACKEND

BACKEND is the name of an installed backend plugin. When this option is specified *a2x* attempts to load a file name *a2x-backend.py* from the *BACKEND* plugin directory. It then converts the *SOURCE_FILE* to a *BACKEND* formatted output file using a global function defined in *a2x-backend.py* called *to_BACKEND*.

-f, --format=FORMAT

Output formats: *chunked*, *docbook*, *dvi*, *epub*, *htmlhelp*, *manpage*, *pdf* (default), *ps*, *tex*, *text*, *xhtml*. The AsciiDoc *a2x-format* attribute value is set to *FORMAT*.

-h, --help

Print command-line syntax and program options to stdout.

--icons

Use admonition or navigation icon images in output documents. The default behavior is to use text in place of icons.

--icons-dir=PATH

A path (relative to output files) containing admonition and navigation icons. Defaults to *images/icons*. The **--icons** option is implicit if this option is used.

-k, --keep-artifacts

Do not delete temporary build files.

--lynx

Use *lynx(1)* (actually: the text-based browser defined by the LYNX config variable) when generating text formatted output. The default behavior is to use *w3m(1)* (actually: the text-based browser defined by the W3M config variable).

-L, --no-xmllint

Do not check *asciidoc* output with *xmllint(1)*.

---epubcheck

Check EPUB output with *epubcheck(1)*.

-n, --dry-run

Do not do anything just print what would have been done.

-r, --resource=RESOURCE_SPEC

Specify a resource. This option may be specified more than once. See the **RESOURCES** section for more details.

-m, --resource-manifest=FILE

FILE contains a list resources (one per line). Manifest *FILE* entries are formatted just like **--resource** option arguments. Environment variables and tilde home directories are allowed.

--stylesheet=STYLESHEET

A space delimited list of one or more CSS stylesheet file names that are used to style HTML output generated by DocBook XSL Stylesheets. Defaults to *docbook-xsl.css*. The stylesheets are processed in list order. The stylesheets must reside in a valid resource file location. Applies to HTML formats: *xhtml*, *epub*, *chunked*, *htmlhelp* formats.

-v, --verbose

Print operational details to stderr. A second **-v** option applies the verbose option to toolchain commands.

--version

Print program version to stdout.

--xsltproc-opts=XSLTPROC_OPTS

Additional *xsltproc(1)* options. This option may be specified more than once.

--xsl-file=XSL_FILE

Override the built-in XSL stylesheet with the custom XSL stylesheet *XSL_FILE*.

--fop

Use FOP to generate PDFs. The default behavior is to use *dblatex(1)*. The **--fop** option is implicit if the **--fop-opts** option is used.

--fop-opts=FOP_OPTS

Additional *fop(1)* options. If this option is specified FOP is used to generate PDFs. This option may be specified more than once.

--dblatex-opts=DBLATEX_OPTS

Additional *dblatex(1)* options. This option may be specified more than once.

--backend-opts=BACKEND_OPTS

Options for the backend plugin specified by the **--backend** option. This option may be specified more than once.

Options can also be set in the AsciiDoc source file. If *SOURCE_FILE* contains a comment line beginning with **// a2x:** then the remainder of the line will be treated as *a2x* command-line options. For example:

```
// a2x default options.
// a2x: -dbook --epubcheck
// Suppress revision history in dblatex outputs.
// a2x: --dblatex-opts "-P latex.output.revhistory=0"
```

- Options spanning multiple such comment lines will be concatenated.
- Zero or more white space characters can appear between the leading **//** and **a2x:**.
- Command-line options take precedence over options set in the source file.

OUTPUT FILES

Output files are written to the directory specified by the **--destination-dir** option. If no **--destination-dir** option is set output files are written to the *SOURCE_FILE* directory.

Output files have the same name as the *SOURCE_FILE* but with an appropriate file name extension: .html for *xhtml*; .epub for *epub*; .hlp for *htmlhelp*; .pdf for *pdf*; .text for *text*, .xml for *docbook*. By convention manpages have no .man extension (man page section number only). Chunked HTML directory names have a .chunked extension; chunked HTML Help directory names have a .htmlhelp extension.

Same named existing files are overwritten.

In addition to generating HTML files the *xhtml*, *epub*, *chunked* and *htmlhelp* formats ensure resource files are copied to their correct destination directory locations.

RESOURCES

Resources are files (typically CSS and images) that are required by HTML based outputs (*xhtml*, *epub*, *chunked*, *htmlhelp* formats). *a2x* scans the generated HTML files and builds a list of required CSS and image files. Additional resource files can be specified explicitly using the **--resource** option.

a2x searches for resource files in the following locations in the following order:

1. The *SOURCE_FILE* directory.
2. Resource directories specified by the **--resource** option (searched recursively).
3. Resource directories specified by the **--resource--manifest** option (searched recursively in the order they appear in the manifest file).
4. The stock images and stylesheets directories in the *asciidoc(1)* configuration files directories (searched recursively).
5. The destination directory.

When a resource file is found it is copied to the correct relative destination directory. Missing destination sub-directories are created automatically.

There are two distinct mechanisms for specifying additional resources:

1. A resource directory which will be searched recursively for missing resource files.
2. A resource file which will be copied to the output destination directory.

Resources are specified with **--resource** option values which can be one of the following formats:

```
<resource_dir>
<resource_file>[=<destination_file>]
.<ext>=<mimetype>
```

Where:

<resource_dir>

Specifies a directory (absolute or relative to the *SOURCE_FILE*) which is searched recursively for missing resource files. To eliminate ambiguity the <resource_dir> name should end with a directory separator character.

<resource_file>

Specifies a resource file (absolute or relative to the *SOURCE_FILE*) which will be copied to <destination_file>. If <destination_file> is not specified then it is the same as the <resource_file>.

<destination_file>

Specifies the destination of the copied source file. The <destination_file> path is relative to the destination directory (absolute paths are not allowed). The location of the destination directory depends on the output *FORMAT* (see the **OUTPUT FILES** section for details):

chunked, htmlhelp

The chunked output directory.

epub

The archived OEBPS directory.

xhtml

The output **DESTINATION_DIR**.

.<ext>=<mimetype>

When adding resources to EPUB files the mimetype is inferred from the <destination file> extension, if the mimetype cannot be guessed an error occurs. The .<ext>=<mimetype> resource syntax can be used to explicitly set mimetypes. <ext> is the file name extension, <mimetype> is the corresponding MIME type.

Resource option examples:

```
--resource ../images/
--resource doc/README.txt=README.txt
--resource ~/images/tiger.png=images/tiger.png
--resource .ttf=application/x-font-ttf
```

EXAMPLES

a2x -f pdf doc/source-highlight-filter.txt
Generates doc/source-highlight-filter.pdf file.

a2x -f xhtml -D ../doc --icons -r ../images/ team.txt
Creates HTML file ../doc/team.html, uses admonition icons and recursively searches the ../images/ directory for any missing resources.

a2x -f manpage doc/asciidoc.1.txt
Generate doc/asciidoc.1 manpage.

REQUISITES

a2x uses the following programs:

- **Asciidoc**: <https://asciidoc.org/>
- **xsltproc**: (all formats except text): <http://xmlsoft.org/XSLT/>
- **DocBook XSL Stylesheets** (all formats except text): <https://github.com/docbook/xslt10-stylesheets>
- **dblatex** (pdf, dvi, ps, tex formats): <http://dblatex.sourceforge.net/>
- **FOP** (pdf format — alternative PDF file generator): <https://xmlgraphics.apache.org/fop/>
- **w3m** (text format): <http://w3m.sourceforge.net/index.en.html>
- **Lynx** (text format — alternative text file generator): <https://invisible-island.net/lynx/>
- **epubcheck** (epub format — EPUB file validator): <https://github.com/w3c/epubcheck>

See also the latest README file.

CONF FILES

A configuration file contains executable Python code that overrides the global configuration parameters in a2x.py. Optional configuration files are loaded in the following order:

1. a2x.conf from the directory containing the a2x.py executable.
2. a2x.conf from the AsciiDoc global configuration directory. Skip this step if we are executing a locally installed (non system wide) copy.
3. a2x.conf from the AsciiDoc \$HOME/.asciidoc configuration directory.
4. The **CONF_FILE** specified in the **--conf-file** option.

Here are the default configuration file option values:

```

# Optional environment variable dictionary passed to
# executing programs. If set to None the existing
# environment is used.
ENV = None

# External executables.
ASCIIDOC = 'asciidoc'
XSLTPROC = 'xsltproc'
DBLATEX = 'dblatex'      # pdf generation.
FOP = 'fop'              # pdf generation (--fop option).
W3M = 'w3m'              # primary text file generator.
LYNX = 'lynx'            # alternate text file generator.
XMLLINT = 'xmllint'      # Set to "" to disable.
EPUBCHECK = 'epubcheck'  # Set to "" to disable.
# External executable default options.
ASCIIDOC_OPTS = ""
BACKEND_OPTS = ""
DBLATEX_OPTS = ""
FOP_OPTS = ""
LYNX_OPTS = '-dump'
W3M_OPTS = '-dump -cols 70 -T text/html -no-graph'
XSLTPROC_OPTS = ""

```

Note, that it is possible to redefine W3M and LYNX to use different text-based browsers, e.g. *links*: <http://links.twibright.com/> or *elinks*: <http://elinks.or.cz/>. LYNX_OPTS and W3M_OPTS can be used to pass options to the selected browser. If these are defined they override the respective defaults listed above (so don't forget to include the *-dump* option in your definition: this is mandatory at least with *w3m*, *lynx*, *links*, and *elinks* in order to send the formatted text to stdout).

BUGS

See the AsciiDoc distribution BUGS file.

AUTHOR

a2x was originally written by Stuart Rackham. Many people have contributed to it.

RESOURCES

GitHub: <https://github.com/asciidoc/asciidoc-py3/>

Main web site: <https://asciidoc.org/>

SEE ALSO

asciidoc(1)

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