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Contents

DITA Open Toolkit Installation Guide

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About the installation guide

This set of information was produced using DITA methodologies. The center point of the information within this guide was created using tasks. We have also included concept and reference topics to support these tasks.

If you are interested in using this information set but need to eliminate some of the tasks, such as HTML Help or Java Help installation, you can filter them out in the map using a .xmlval file or the print attribute.

We slightly modified the HTML style sheet delivered with the DITA open toolkit by changing the spacing between steps and enhancing the output format of the tables. We made these changes to the stylesheet by adding CSS and basic html tags to the stylesheet that is delivered with the open toolkit. The DITA Toolkit was used to produce this information. In production, we used the HTML Help .chm build file to produce our output.

About the DITA Open Toolkit for Windows

Navigation title: DITA Open Toolkit for Windows
Search title: DITA Open Toolkit for Windows

The DITA Open Toolkit is an implementation of the OASIS DITA Technical Committee's specification for Darwin Information Typing Architecture (DITA) DTDs and schemas. The Toolkit transforms DITA XML source content into deliverable formats such as PDF, HTML, and help systems.

This guide explains how to install the DITA Open Toolkit and provides background and reference information to help you understand the process.

Installation Requirements

To successfully install the DITA Open Toolkit, you must have a Windows operating system running on your workstation.

DITA Open Toolkit Installation

Search title: DITA Open Toolkit Installation (Windows)

This guide provides you with the steps to successfully install the DITA Open Toolkit provided on the SourceForge web site.

Included with this guide is background and reference information about the DITA Open Toolkit installation process. You can install the items in any order. If you already have some of the items (JavaHelp, SAXON, etc.) installed on your computer, skip to another section and proceed until all required items are installed.

The guide does not include instructions for using the Toolkit.

Installing the DITA Open Toolkit

Search title: Installing the DITA Open Toolkit (Windows)

The DITA Open Toolkit is downloaded from the SourceForge web site. For this

installation, you will access the web sites for each of the required installation items, including Ant, Java Development Toolkit, JavaHelp, Apache FOP, SAXON XSLT Processor, and Microsoft HTML Help.

1. Enter the URL: http://sourceforge.net/projects/dita-ot
2. On the SourceForge.net page, find **dita-ot 1.1.2**
3. Select **dita-ot 1.1.2**.

   The `Dita-ot` table displays.

4. Select **DITA-OT1.1.2_bin.zip**

   The SourceForge.net page opens with a list of `download options`.

5. Select any of the  images to start the download.

   If the DITA Open Toolkit does not appear to be downloading, wait a few minutes before selecting another image. You may have to select more than one images until you find one that works.
   Note: If you are an Internet Explorer user and a yellow bar appears at the top of the screen with the message, "To help protect your security, Internet Explorer blocked this site from downloading files to your computer. Click here for options...,"click on the bar and select "Download File."

6. Click **Save** to unzip the DITA-OT1.1.2_bin.zip file and save it to your C:\ directory as `ditaot`.

Installing Ant

Search title: Installing Ant (Windows)

Apache Ant is a build tool that is Java-based and uses Java classes. Ant configuration files are XML based. You can use them to build all output files such as HTML, PDF, and help systems.

1. Enter the URL: http://ant.apache.org/bindownload.cgi
2. On the Apache Ant Project page, find the heading **Current Release of Ant**
3. Select **apache-ant-1.6.5-bin.zip [PGP] [SHA1] [MD5]**
4. Click **Save** to unzip the apache-ant-1.6.5-bin.zip [PGP] [SHA1] [MD5] file and save it to your C:\ directory as `ant`.
5. Add the `bin` directory to your *Path* environment variable .
6. Add the *ANT_HOME* environment variable .

Installing JDK (Java Development Kit)

Search title: Installing JDK (Windows)

Java Development Kit (JDK) is a Sun product targeted for Java developers. You can use it to write, compile, debug, and run Java applets and applications.

1. Enter the URL: http://java.sun.com/products/archive/j2se/1.4.2_08/index.html
2. From the Sun Developer Network page, scroll to find the heading **J2SE v 1.4.2_08 SDK**
3. Select **Download J2SE SDK**
4. From the Sun Developer Network page, accept the license agreement and scroll to the heading "Windows Platform - Java(TM) 2 SDK, Standard Edition 1.4.2_08"
5. Select and download **Windows Installation, Multi-language**.
6. Save and install the .exe file.
7. If prompted, install the JDK to `C:\j2sdk1.4.2_08`.
8. Set the environment variable for *JAVA_HOME*.

Installing JavaHelp

Search title: Installing JavaHelp (Windows)

You can use JavaHelp to incorporate online help in applications, components, operating systems, applets, and devices.

1. Enter the URL: http://java.sun.com/products/javahelp/download_binary.html

2. From the Sun Developer Network page, scroll to find the heading **JavaHelp 2.0_02 (Zip)**
3. Select **Download**.
4. From the Sun Developer Network page, accept the license agreement and scroll to the heading "Platform - JavaHelp API 2.0_02 FCS"
5. Select **javahelp-2_0_02.zip, 6.49 MB**

   The `File Download` window opens.

6. Click **Save** to unzip the javahelp-2_0_02.zip file and save it to the C:\ directory as `javahelp`.
7. Set the *JHHOME* environment variable .

Installing Apache FOP

Search title: Installing Apache FOP (Windows)

Formatting Objects Processor (FOP) is a print formatter. It uses XSL formatting objects (XSL-FO) to produce portable document format (PDF) or direct-printable files. You can use it to format and produce PDF output from XML.

1. Enter the URL: http://apache.tradebit.com/pub/xml/fop/
2. From the FOP page, in the Name column, select  **"fop-0.20.5-bin.zip"**
3. Click **Save** to unzip the fop-0.20.5-bin.zip file and save it to the C:\ directory as `fop-0.20.5`
4. Set the *CLASSPATH* environment variable for the following jar files:

```
\build\fop.jar
\lib\batik.jar
\lib\avalon-framework-cvs-20020806.jar
```

Installing SAXON XSLT Processor

Search title: Installing SAXON XSLT Processor (Windows)

You can use the SAXON SXLT Processor to import stylesheets and queries into an XML schema, validate XML data against a schema, and select the elements and attributes in your XML documents according to their schema-defined type.

1. Enter the URL: http://saxon.sourceforge.net/
2. From SAXON: The XSLT and XQuery Processor page, scroll to find the heading **Saxon 6.5.3**
3. Select **Download (3265 Kbytes)**.

   The SourceForge.net page opens with a list of download options.

4. Select any of the  images to start the download.

   If SAXON does not appear to be downloading, wait a few minutes before selecting another  image. You may have to select more than one  image until you find one that works.
   Note: If you are an Internet Explorer user and a yellow bar appears at the top of the screen with the message, "To help protect your security, Internet Explorer blocked this site from downloading files to your computer. Click here for options..," click on the bar and select "Download File."

5. Click **Save** to unzip the Saxon 6.5.3.zip file and save it to the C:\ directory as `saxon`.
6. Set the *CLASSPATH* environment variable for following saxon.jar files:

Installing XALAN XSLT Processor

Search title: Installing XALAN XSLT Processor (Windows)

You can alternatively use the XALAN SXLT Processor to import stylesheets and queries into an XML schema, validate XML data against a schema, and select the elements and attributes in your XML documents according to their schema-defined type.

1. Enter the URL: http://archive.apache.org/dist/xml/xalan-j/
2. From SAXON: The Xalan Processor page, scroll to find the heading **xalan-j_2_6_0-bin.zip**. Click to downlad.
3. Save and unzip the xalan-j_2_6_0-bin.zip file to C:\ directory as `xalan`.
4. Set the *CLASSPATH* environment variable for following .jar files: `xalan.jar` file and the `xercesImpl.jar` file

Installing Microsoft HTML Help

Search title: Installing Microsoft HTML Help (Windows)

Microsoft HTML Help is an online help authoring tool. You can use it to develop and author online help for software applications or web sites.

1. Enter the URL: http://msdn.microsoft.com/library/default.asp?url=/library/en-us/htmlhelp/html/hwmicrosofthtmlhelpdo
2. From the MSDN page, scroll to find the heading **HTML Help Workshop**
3. Select **Download Htmlhelp.exe**.
4. Click **Run** and navigate to a C:\ directory as `C:\Program Files\HTML Help Workshop`.
5. Follow the steps in the HTML Help install guide wizard to complete the installation.

Setting Environment Variables

Search title: Setting Environment Variables (Windows)

Use this information to find and set your environment variables. Set your system environment variables after all DITA Open Toolkit items are installed. The environment variables must be set for each item installed in this guide.

1. From the Start Menu, select **Start > Settings > Control Panel.**
2. Double-click *System* to open the System Properties window.
3. On the Advanced tab, select *environmental variables* .
4. Modify each *environmental or system variable*.

Set the *Path* environment variable to include the directory where you installed the Ant bin directory.	**#. Find the *Path* environment variable in the list. If *Path* is not listed, click on New under the System variables section.** **#. Type `%ANT_HOME%\bin`** **> Important: If there are other variables listed, create a new variable separated by a semicolon. Ensure there are no spaces before or after the semicolon.**
Set the *ANT_HOME* environment variable to the directory where you installed Ant.	**#. Click on New under the System variables section.** **#. Type `ANT_HOME` in the variable name field.** **#. Type `C:\ant` in the variable value field.**
Set the *JAVA_HOME* environment variable to the directory where you installed the J2SE SDK application.	**#. Click on New under the System variables section.** **#. Type `JAVA_HOME` in the variable name field.** **#. Type `C:\j2sdk1.4.2_08` in the variable value field.**
Set the *JHHOME* environment variable to the directory where you installed the JavaHelp application.	**#. Click on New under the System variables section.** **#. Type `JHHOME` in the variable name field.** **#. Type `C:\javahelp\jh2.0` in the variable value field.**
Set the *CLASSPATH* environment variable to include the .jar files from the Apache FOP application.	**#. Find the *CLASSPATH* environment variable in the list. If *CLASSPATH* is not listed, click on New under the System variables section.** **#. Type `C:\fop-0.20.5\build\fop.jar;C:\fop-0.20.5\lib\batik`** **> Important: If there are other variables listed, create new variable separated by a semicolon.**

	Ensure there are no spaces before or after the semicolon.
Set the *CLASSPATH* environment variable to include the directory where you installed Saxon.	**If you use the Saxon,** **#. Find the *CLASSPATH* environment variable in the list. If *CLASSPATH* is not listed, click on New under the System variables section.** **#. Type `C:\saxon\saxon.jar`** **> Important: If there are other variables listed, create a new variable separated by a semicolon. Ensure there are no spaces before or after the semicolon.**
Set the *CLASSPATH* environment variable to include the directory where you installed Xalan.	**If you use the Xalan,** **#. Find the *CLASSPATH* environment variable in the list. If *CLASSPATH* is not listed, click on New under the System variables section.** **#. Type `C:\xalan\bin`** **> Important: If there are other variables listed, create a new variable separated by a semicolon. Ensure there are no spaces before or after the semicolon.**

Testing DITA Installation

Search title: Testing DITA Installation (Windows)

Test your DITA Open Toolkit installation to ensure it installed correctly.

1. From the toolbar, click *Start* > *Run*.
2. In the Open field, type `cmd`.
3. Change the command prompt according to the following table.

If this prompt displays,	type the following command
D:	`c:`
H:	`c:`
C:\My Documents\...	`cd \`

4. At the prompt, type `cd ditaot`

   The command prompt changes to `c:\ ditaot`

5. Type `ant all` and press Enter to begin testing.

   The testing process completes in 3-10 minutes depending on the speed of your machine. When testing completes, the confirmation message "BUILD SUCCESSFUL" displays.
   Note: To read more about the DITA Open Toolkit options and functions, see C:\ditaot\doc\DITA-readme.html on your local hard drive.

Troubleshooting

Use this information to identify problems when installing and running the DITA Open Toolkit.

Out of Memory Error- In step four of testing DITA installation, you may receive a

message stating the build has failed due to an "Out of Memory" error.

1. In the command prompt under the DITA Open Toolkit directory (DITAOT) type `set ANT_OPTS=-Xmx256M`
2. Repeat step four of the testing DITA installation process again by typing `ant all` in the command prompt.

About the DITA Open Toolkit for Linux

Navigation title: DITA Open Toolkit for Linux
Search title: About DITA Open Toolkit for Linux

The DITA Open Toolkit is an implementation of the OASIS DITA Technical Committee's specification for Darwin Information Typing Architecture (DITA) DTDs and schemas. The Toolkit transforms DITA XML source content into deliverable formats such as PDF, HTML, and help systems.

This guide explains how to install the DITA Open Toolkit and provides background and reference information to help you understand the process.

Installation Requirements

To successfully install the DITA Open Toolkit, you must have a Linux operating system running on your workstation.

DITA Open Toolkit Installation

Search title: DITA Open Toolkit Installation (Linux)

This guide provides you with the steps to successfully install the DITA Open Toolkit provided on the SourceForge web site.

Included with this guide is background and reference information about the DITA Open Toolkit installation process. You can install the items in any order. If you already have some of the items (Ant, SAXON, etc.) installed on your computer, skip to another section and proceed until all required items are installed.

The guide does not include instructions for using the Toolkit.

Installing the DITA Open Toolkit

The DITA Open Toolkit is downloaded from the SourceForge web site. For this installation, you will access the web sites for each of the required installation items, including Ant, Java Development Toolkit, JavaHelp, Apache FOP, and SAXON XSLT Processor.

1. Enter the URL: http://sourceforge.net/projects/dita-ot
2. On the SourceForge.net page, find **dita-ot 1.1.2**
3. Select **dita-ot 1.1.2**.

   The `Dita-ot` table displays.

4. Select **DITA-OT1.1.2_bin.tar.gz**

   The SourceForge.net page opens with a list of `download options`.

5. Save and extract the package file into a Linux home directory.

   Note: You can extract all package files and toolkits either to your private home directory for exclusive usage or to /usr/local/share/ directory for sharing.

Installing Ant

Search title: Installing Ant (Linux)

Apache Ant is a build tool that is Java-based and uses Java classes. Ant configuration files are XML based. You can use them to build all output files such as HTML, PDF, and help systems.

1. Enter the URL: http://ant.apache.org/bindownload.cgi
2. On the Apache Ant Project page, find the heading **Current Release of Ant**
3. Select **apache-ant-1.6.5-bin.tar.gz [PGP] [SHA1] [MD5]**
4. Save and extract the package file into a Linux home directory.
5. Add the `bin` directory to your *Path* environment variable .
6. Add the *ANT_HOME* environment variable .

Installing JDK (Java Development Kit)

Search title: Installing JDK (Linux)

Java Development Kit (JDK) is a Sun product targeted for Java developers. You can use it to write, compile, debug, and run Java applets and applications.

1. Enter the URL: http://java.sun.com/products/archive/j2se/1.4.2_08/index.html
2. From the Sun Developer Network page, scroll to find the heading **J2SE v 1.4.2_08 SDK**
3. Select **Download J2SE SDK**
4. From the Sun Developer Network page, accept the license agreement and scroll to the heading "Linux Platform - Java(TM) 2 SDK, Standard Edition 1.4.2_08"
5. Select and download **RPM in self-extracting file** .
6. Run and install into a Linux home directory.
7. Set the environment variable for *JAVA_HOME*.

Installing Apache FOP

Search title: Installing Apache FOP (Linux)

Formatting Objects Processor (FOP) is a print formatter. It uses XSL formatting objects (XSL-FO) to produce portable document format (PDF) or direct-printable files. You can use it to format and produce PDF output from XML.

1. Enter the URL: http://apache.tradebit.com/pub/xml/fop/
2. From the FOP page, in the Name column, select  **"fop-0.20.5-bin.tar.gz"**
3. Save and extract the package file into a Linux home directory.
4. Set the *CLASSPATH* environment variable for the following jar files:

```
\build\fop.jar
\lib\batik.jar
\lib\avalon-framework-cvs-20020806.jar
```

Installing SAXON XSLT Processor

Search title: Installing SAXON XSLT Processor (Linux)

You can use the SAXON SXLT Processor to import stylesheets and queries into an XML schema, validate XML data against a schema, and select the elements and attributes in your XML documents according to their schema-defined type.

1. Enter the URL: http://saxon.sourceforge.net/
2. From SAXON: The XSLT and XQuery Processor page, scroll to find the heading **Saxon 6.5.3**
3. Select **Download (3265 Kbytes)**.

   The SourceForge.net page opens with a list of download options.

4. Select any of the  images to start the download.

   If SAXON does not appear to be downloading, wait a few minutes before selecting another  image. You may have to select more than one  image until you find one that works.
   Note: If you are an Internet Explorer user and a yellow bar appears at the top of the screen with the message, "To help protect your security, Internet Explorer blocked this site from downloading files to your computer. Click here for options..," click on the bar and select "Download File."

5. Download and unzip the Saxon 6.5.3.zip file and save it to a Linux home directory.
6. Set the *CLASSPATH* environment variable for following saxon.jar files:

Installing XALAN XSLT Processor

Search title: Installing XALAN XSLT Processor (Linux)

You can alternatively use the XALAN SXLT Processor to import stylesheets and queries into an XML schema, validate XML data against a schema, and select the elements and attributes in your XML documents according to their schema-defined type.

1. Enter the URL: http://archive.apache.org/dist/xml/xalan-j/
2. From SAXON: The Xalan Processor page, scroll to find the heading **xalan-j_2_6_0-bin.tar.gz**. Click to downlad.
3. Save and unzip the xalan-j_2_6_0-bin.tar.gz file to a linux home directory.
4. Set the *CLASSPATH* environment variable for following .jar files: `xalan.jar` file and the `xercesImpl.jar` file

Setting Environment Variables

Search title: Setting Environment Variables (Linux)

Use this information to find and set your environment variables. Set your system environment variables after all DITA Open Toolkit items are installed. The environment variables must be set for each item installed in this guide.

1. Type in the Linux Console.
2. Modify each *environmental or system variable*.

Set the *Path* environment variable to include the directory where you installed the Ant bin directory.	**#. `export PATH=${PATH}:${ANT_HOME}/bin`**
Set the *ANT_HOME* environment variable to the directory where you installed Ant.	**#. `export ANT_HOME=<ant_dir>`**
Set the *JAVA_HOME* environment variable to the directory where you installed the J2SE SDK application.	**#. `export JAVA_HOME=<java_dir>`**
Set the *JHHOME* environment variable to the directory where you installed the JavaHelp application.	**#. `export JHHOME=<Javahelp_dir>`**
Set the *CLASSPATH* environment variable to include the .jar files from the Apache FOP application.	**#. set up your environment variable CLASSPATH to include the fop.jar, batik.jar and avalon.jar files in the FOP directory. For example:** `export CLASSPATH=$CLASSPATH: <fop_dir>/build:<fop_dir>/lib`

Set the *CLASSPATH* environment variable to include the directory where you installed Saxon.	**If you use the Saxon,**
	#. Set up CLASSPATH to include the saxon.jar file. For example:
	`export CLASSPATH=$CLASSPATH: <saxon_dir>/saxon.jar`
	#. Set up ANT_OPTS. For example:
	`export ANT_OPTS=ANT_OPTS -Djavax.xml.transform.TransformerFactory=com.icl.sax`

Set the *CLASSPATH* environment variable to include the directory where you installed Xalan.	**If you use the Xalan,** **#. Set up CLASSPATH to include the `xalan.jar` file and the `xercesImpl.jar` file. For example:** `export CLASSPATH=$CLASSPATH: <xalan_dir>/bin`

Testing DITA Installation

Search title: Testing DITA Installation (Linux)

Test your DITA Open Toolkit installation to ensure it installed correctly.

1. In the console, type `cd {DITAOT_dir}`.
2. Type `ant all` and press Enter to begin testing.

   The testing process completes in 3-10 minutes depending on the speed of your machine. When testing completes, the confirmation message "BUILD SUCCESSFUL" displays.
   Note: To read more about the DITA Open Toolkit options and functions, see {DITAOT_dir}\doc\DITA-readme.html on your local hard drive.

Troubleshooting

Search title: Troubleshooting (Linux)

Use this information to identify problems when installing and running the DITA Open Toolkit.

Out of Memory Error- In step four of testing DITA installation, you may receive a message stating the build has failed due to an "Out of Memory" error.

1. In the command prompt under the DITA Open Toolkit directory (DITAOT) type `export ANT_OPTS=-Xmx256M`
2. Repeat step four of the testing DITA installation process again by typing `ant all` in the console.