Full-Documentation of BaseX

BaseX-Team

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Chapter 1. Introduction

BaseX is a native, open-source XML database and efficient XQuery/XQuery Full Text processor. It supports very large XML instances and offers a visual, interactive frontend. BaseX is written in Java and freely available for download. It is developed by the Database and Information Systems Group at the University of Konstanz.

Prerequisites

Operating System

BaseX was tested on the following platforms:

• Windows 2000, XP, Vista, 7

• Linux: Debian/Ubuntu, SuSE, Redhat

• Max OS X (10.4+)

• OpenBSD (4.3)

Every other platform with a Java VM should be able to run BaseX.

Software

To run any version of BaseX, you need version 1.5 or later of the Java runtime environment (JRE) or development kit (JDK).

The latest version of Java can be downloaded at `http://www.java.com` or `http://java.sun.com`.

Hardware

BaseX works with very limited resources (400 MHz, 64 MB RAM). To work with larger databases, however, you might benefit from more RAM. If you encounter main memory limits, there are several things you can try:

• Increase Java's virtual memory

• Switch off database indexes

• Use BaseX's internal XML parser

Installation

BaseX works without any installation. The following files can be downloaded [http://www.inf.uni-konstanz.de/dbis/basex/download.php] from the homepage:

• *BaseX.jar*: simple JAR file

• *BaseX.exe*: a JAR file, which is wrapped into a Windows executable

• *BaseX-XQJ.jar*: XQuery for Java [http://www.inf.uni-konstanz.de/dbis/basex/download.php?dl=BaseX55-xqj.jar] Database API

• *BaseX-XMLDB.jar*: XML:DB [http://www.inf.uni-konstanz.de/dbis/basex/download.php?dl=BaseX55-xmldb.jar] Database API

- *BaseX-Complete.zip*: JAR files, sources, documentation and files to build the project

The JAR file and the Windows executable can be launched with a simple double-click. The "Complete" package contains the following files and directories (selection):

Project Directory

```
doc             Project documentation
etc             Various files for project handling
src             Project sources
.project         Eclipse [http://www.eclipse.org/] project file
makefile        Linux Makefile
BaseX.jar       Public JAR file
license.txt     Licensing Information
readme.txt      Project Information
build.xml       Ant [http://ant.apache.org/] Build file
input.xml       XML sample document
```

In the *etc* folder, you find Linux scripts and Windows batch files which can moved into your PATH environment to speedup execution.

Quick Start

By double-clicking the JAR file, the graphical interface is launched. If you start BaseX on the command line, or use the scripts mentioned above, you have some more options:

Console version

```
java -cp BaseX.jar org.basex.BaseX
```

Running the server and a client instance

```
java -cp BaseX.jar org.basex.BaseXServer
```

```
java -cp BaseX.jar org.basex.BaseXClient
```

GUI version (granting more memory)

```
java -Xmx512m -jar BaseX.jar
```

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