



# ####Apache Derby

*Version 10.2*

Derby Document build:  
November 29, 2010, 7:08:49 AM (PST)



# Contents

Copyright.....	3
Derby###.....	4
#####.....	4
#####.....	4
Derby#####.....	4
Derby#####.....	5
Derby#####.....	5
####.....	5
Derby#####.....	6
sysinfo###.....	6
ij###.....	6
classpath###.....	7
JDBC#####.....	8
Derby#####.....	8
#####.....	8
#####/#####.....	8
#####.....	8
#####URL.....	8
#####.....	10
##.....	10
SQL###.....	10
##.....	10
Derby#####.....	12
Derby#####.....	12
Derby#####.....	12
Derby#####.....	13
Trademarks.....	14

####Apache Derby  
Apache Software Foundation####Apache DerbyApache Derby

## Copyright



Copyright 2004, 2006 The Apache Software Foundation

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at <http://www.apache.org/licenses/LICENSE-2.0>.

## Derby###

Derby#####! Derby##Java<sup>(TM)</sup>#SQL#####(RDBMS)###  
#####Derby#####

### #####

Derby#####

#####:

- #####Java##### Derby #####Java#####(JVM)#####DBMS#####
- Web#####
- #####  
#####

### #####

Derby #Java#####  
#####Java#####(JVM)#####

## Derby#####

Derby#####Derby #####API#####

### **Derby Developer's Guide**

Derby#JDBC/  
SQL#####Derby#####Derby#####

### **Derby Reference Manual**

Derby#####SQL#####Derby#JDBC#JTA#####SQLExceptions#

### **Tuning Derby**

Derby#####  
#####Derby#####

### **Derby Tools and Utilities Guide**

i j#####

### **Derby Server and Administration Guide**

#####  
#####  
#####

### **Derby API javadoc**

#####Derby##### (J2SE#####JDBC API#javadoc#####)  
API#####Derby Reference Manual#####

## Derby#####

####Derby### JDBC #####

####JDBC#####JDBC#####

## Derby#####

Derby#####

###Derby#zip####tar#####Derby#Web#####

Web#####[http://db.apache.org/derby/derby\\_downloads.html](http://db.apache.org/derby/derby_downloads.html)##### ##URL#####

#####[http://db.apache.org/derby/dev/derby\\_source.html](http://db.apache.org/derby/dev/derby_source.html)

#####Derby#####Subver

#####

- bin#####jar#####lib#####
- lib#####jar#####
- lib-debug#####jar#####
- src#####bin, lib, and lib-debug#####

#####bin#####

#####

- demo#####
  - bin#####
  - javadoc#####api#####
  - docs#####Derby#####
  - lib#####Derby#jar#####
  - test#####Derby#####.
  - frameworks#####
- #####

## ####

####Derby#bin#####

#####Windows#####Unix#####

#####

1. #####DERBY\_HOME##Derby####(bin)#####

#####Derby#Windows#c:\Derby\_10#####Unix#/opt/

Derby\_10##### DERBY\_HOME#####

OS	####
UNIX	export DERBY_HOME=/opt/Derby_10
Windows	set DERBY_HOME=c:\Derby_10

2. #####JAVA\_HOME#####JAVA\_HOME#####JVM#Java#####

OS	####
UNIX	export JAVA_HOME=/usr/j2se
Windows	set JAVA_HOME=C:\Program Files\Java\j2se1.4.2_05

3. DERBY\_HOME /  
bin#####PATH#####Derby#####

OS	####
UNIX	export PATH="\$DERBY_HOME/bin:\$PATH"
Windows	set PATH=%DERBY_HOME%\bin;%PATH%

4. #####DERBY\_HOME#JAVA\_HOME#####DERBY\_HOME/bin  
#####PATH environment#####

#####

sysinfo

#####sysinfo#####JVM#####Derby#####

bin#####Derby#####

## Derby#####

Derby#####.

Derby###dblook# ij#

###sysinfo#####Derby#####Derby#####

##Derby#####ij#####

*Tools and Utilities Guide##Derby Reference Manual#####*

#####DERBY\_HOME /

bin#####classpath#####

DERBY\_HOME /

bin#####DBMS#####Network

Server#####

- dblook#-d#####Network Server##URL#####dblook -d  
'jdbc:derby://localhost/myDB;user=usr' #####
- ij##set  
DERBY\_OPTS=-Dij.protocol=jdbc:derby://localhost/  
#####ij# ij#####
- sysinfo##NetworkServerControl sysinfo#####

*Getting Started with*

Derby#####Derby#####Derby#####

#####Derby#####

## sysinfo###

Derby##### sysinfo##Java#####Derby#####

DERBY\_HOME/bin#####PATH#####sysinfo##### sysinfo#####class

sysinfo

## ij####



####Apache Derby

ij#####Derby#####

ij#####DERBY\_HOME/bin#####PATH#####

- ij#####  
#####

ij

ij #####CLASSPATH#####ij#####

- ij#####

ij> connect 'jdbc:derby:testdb;create=true';

#####testdb#####

####ij#####SQL#####

- ij#####

ij> exit;

ij#####Derby Tools and Utilities Guide#####

## classpath###

classpath

###JVM###Java#####classpath#####Derby#####

CLASSPATH#####Java#####JVM#####

#####CLASSPATH#####Derby

#DERBY\_HOME/

bin#####classpath#####

### setEmbeddedCP

setEmbeddedCP

#####derby.jar#derbytools.jar#classpath#####

### setNetworkServerCP

The setNetworkServerCP#network

server#####derby.jar#derbynet.jar#classpath#####

### setNetworkClientCP

setNetworkClientCP#network

client#####derbyclient.jar#derbytools.jar#classpath#####

classpath#####

#####classpath#####

- UNIX###echo \$CLASSPATH#####
- Windows###echo %CLASSPATH%#####

ij#sysinfo#####Derby Tools and Utilities Guide#####

## JDBC#####

####JDBC#####classpath#####Java#####JDBC#####  
#####Derby Developer's Guide#Derby Tools and Utilities  
Guide#####

## Derby#####

Derby#####Derby#####  
#####classpath#####URL#####  
####Derby Developer's Guide###Derby#####

## #####

#####  
#####JVM###Derby#####Derby#

## #####/#####

#####/#####Derby#####  
Derby#####(#####Derby#####  
###Java#####Derby#####  
#####Derby#####Derby Server and Administration Guide#####

## #####

Derby#####  
• org.apache.derby.jdbc.EmbeddedDriver  
#####JVM#Derby#####  
• org.apache.derby.jdbc.ClientDriver  
#####

## #####URL

Derby#####URL#####  
#####URL#####  
jdbc:derby:databaseName;URLAttributes  
#####  
• databaseName  
#####  
• URLAttributes  
#####URL#####;locale=ll\_CC#;create=true####  
#####Derby Developer's Guide#####  
Derby#####URL#####

####Apache Derby

```
jdbc:derby://<server>[:<port>]/databaseName[;URLAttributes=<value>[;...]]
```

```
<server>#<port>#####(###IP###)#####databaseName#####  
URLAttributes#####  
#####Derby Server and  
Administration Guide
```

#####

#####Derby#####

##

Derby#####Derby#####  
#####/#####

SQL###

SQL#####BNF#####  
BNF#####

##	##
	#### #####
[ ]	#####
*	#####0#####SQL#####
{ }	[ ] #### *#####
( ) . ,	#####

SQL#####

```
CREATE [ UNIQUE ] INDEX IndexName
ON TableName ( SimpleColumnName [ , SimpleColumnName ] * )
```

Java#####java#####

```
java org.apache.derby.tools.ij
```

#####JVM#####JVM#####JVM#####

##

#####SQL##OS#####Java#####

# 1. Derby #####

##	##	#
#####	#####	keys#####
#####	#####	C:\derby
#####	#####	Employees####
#####	#####	CREATE TABLE tableName
SQL ##	## #####/### ##	SELECT city_name FROM Cities

####Apache Derby

##	##	#
Java#####	## #####/### ##	Connection conn = DriverManager.getConnection ( "jdbc:derby:Sample" )
#####	## #####/### ##	java org.apache.derby.tools.ij
#####	## #####/### ##	--#####
SQL(####)#####	#####	CREATE TABLE#####

## Derby#####

#####Derby#####

## Derby#####

#####Derby#####

### # 2. Derby#####

#####	###
##### #####/ #####	
derby.jar	#####
##### #####classpath#####/ #####	
derbytools.jar	Derby#####(ij, dblook #import/export#)#####
derbyrun.jar	Derby#####jar#####
#####	
derbynet.jar	Derby#####
#####	
derbyclient.jar	Derby#####
#####	
<ul style="list-style-type: none"> <li>derbyLocale_es.jar</li> <li>derbyLocale_de_DE.jar</li> <li>derbyLocale_fr.jar</li> <li>derbyLocale_it.jar</li> <li>derbyLocale_ja_JP.jar</li> <li>derbyLocale_ko_KR.jar</li> <li>derbyLocale_pt_BR.jar</li> <li>derbyLocale_zh_CN.jar</li> <li>derbyLocale_zh_TW.jar</li> </ul>	#####

## Derby#####

JDK 1.3 #####Derby

#####classpath#####(JDK  
1.4#####)

- LDAP (*Derby Developer's Guide*#####)
- JTA (*Derby Reference Manual*#####)
- JDBC 2.0## (*Derby Reference Manual*#####)

## Derby#####

Derby##### /bin #####

Derby#####

- *bin/dblook*

dblook#####

- *bin/ij*

ij#####

- *bin/NetworkServerControl*

NetworkServerControl#####

- *bin/setEmbeddedCP*

Derby#####classpath#####

- *bin/setNetworkClientCP*

Derby#####classpath#####

- *bin/setNetworkServerCP*

Derby#####classpath#####

- *bin/startNetworkServer*

#####

- *bin/stopNetworkServer*

#####

- *bin/sysinfo*

sysinfo#####

## Trademarks

The following terms are trademarks or registered trademarks of other companies and have been used in at least one of the documents in the Apache Derby documentation library:

Cloudscape, DB2, DB2 Universal Database, DRDA, and IBM are trademarks of International Business Machines Corporation in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Other company, product, or service names may be trademarks or service marks of others.