

JDK 7 출시 기념 (2011.7)

JDK 7 소개

#1 short introduction

김용환

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JDK 7

- jdk 7 pre release는 한계가 있는 테스트판
- jdk 7 RC 부터는 정식으로 사용 가능
 - <http://jdk7.java.net/license.txt>

개발환경

JDK7 다운로드

- <http://jdk7.java.net/preview/index.html#lic>



JDK 7

- Developer Preview Release
- Downloads
- JDK 7 javadoc
- Feedback Forum
- OpenJDK
- Planet JDK

Java™ Platform, Standard Edition 7 Binary Snapshot Releases

June 27, 2011

Build b147

[Previous Snapshot Releases](#)
[Summary of changes in JDK 7 build b147](#)
[Feedback forum](#)
[Report Bugs](#)

Please note:

This list offers files for different platforms - please be sure to select the proper file(s) for your platform. Carefully review files listed below to select the ones you want, then click the link(s) to download.

The DEBUG builds have not been run through ANY quality procedures, and are only provided as a potential way to track down a bug in JRE or JDK. There is no guarantee that the debug builds will work.

License Agreement:

You must accept the [Pre-Release Software Evaluation Agreement](#) to download this software.

Accept License Agreement | Decline License Agreement

Documentation

- Docs (60.94 MB zip | HTML)

Platforms	JRE	JDK	DEBUG [?]
Windows	exe (md5) 19.26 MB	exe (md5) 79.48 MB	tar.gz (md5) 113.82 MB
Windows x64	exe (md5) 20.34 MB	exe (md5) 80.25 MB	tar.gz (md5) 104.10 MB
Solaris SPARC	32-bit tar.gz (md5) 39.28 MB	tar.gz (md5) 99.48 MB	tar.gz (md5) 120.23 MB
	64-bit* tar.gz (md5) 12.01 MB	tar.gz (md5) 12.38 MB	tar.gz (md5) 28.92 MB
Solaris	x86 tar.gz (md5) 34.95 MB	tar.gz (md5) 94.75 MB	tar.gz (md5) 117.91 MB
	x64* tar.gz (md5) 9.05 MB	tar.gz (md5) 9.39 MB	tar.gz (md5) 29.66 MB
Linux	tar.gz (md5) 32.19 MB	tar.gz (md5) 92.17 MB	tar.gz (md5) 98.30 MB
Linux x64	tar.gz (md5) 30.85 MB	tar.gz (md5) 90.57 MB	tar.gz (md5) 88.64 MB

*Note: Solaris 64-bit requires users to first install the 32-bit version.

JDK7 다운로드

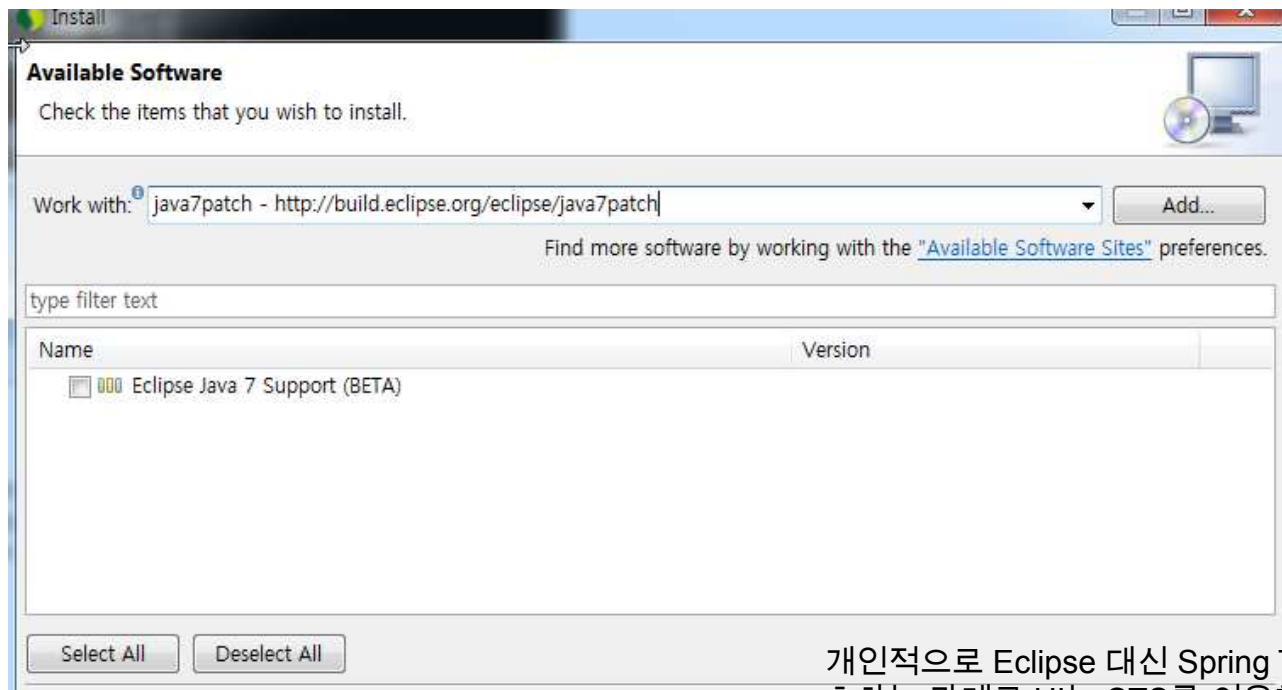
- Java 버전 확인
 - 컴파일러

```
C:\Users\>"c:\Program Files\Java\jdk1.7.0\bin\javac.exe" -version
javac 1.7.0
```

Eclipse 개발 환경 구축

현재의 Eclipse 버전으로는 jdk 7 빌드가 실패한다.
-> jdk7용 Eclipse 플러그인을 받아야 한다.

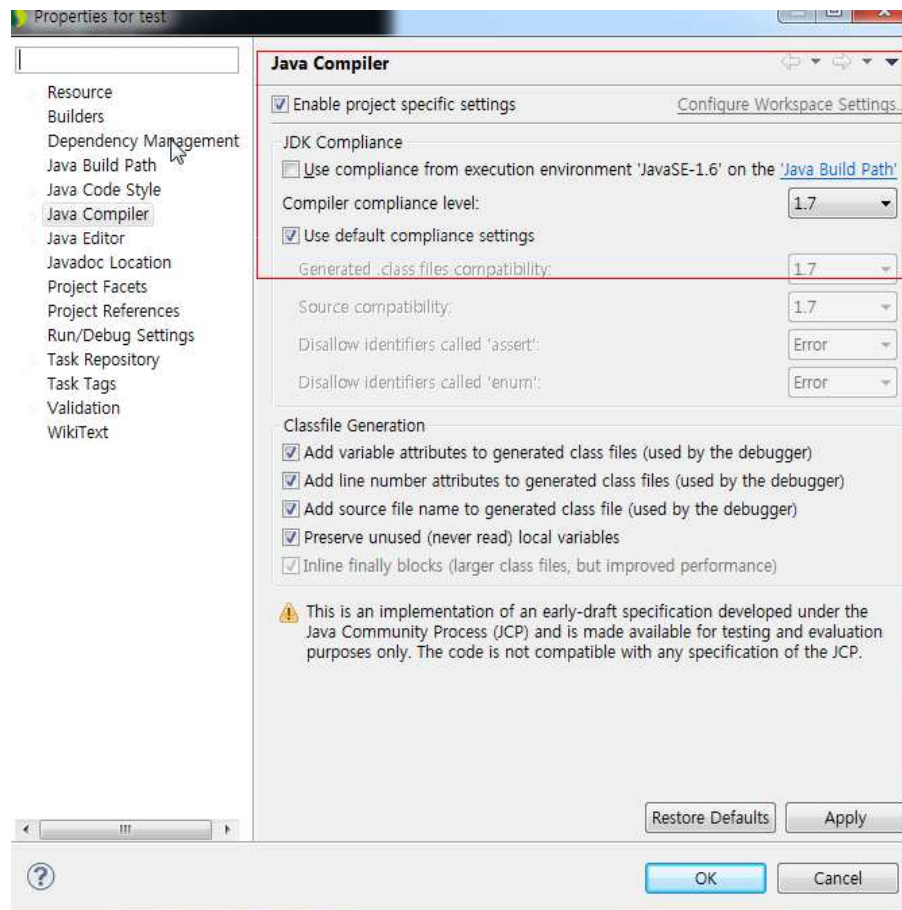
Help-> New Install Software ->
Install 주소 설정 (<http://build.eclipse.org/eclipse/java7patch/>)
Eclipse Java7 Support(BETA)를 선택



개인적으로 Eclipse 대신 Spring Tool Suite(STS)를 선호하는 관계로 미는 STS를 이용했음

Eclipse 개발 환경 구축

프로젝트의 Properties 설정에 java compiler를 선택하고,
jdk compliance를 1.7로 선택



Eclipse 개발 환경 구축

자동 빌드 에러가 발생되지 않는다.

```
public class Test {  
    public static void main(String[] args) {  
        String str = "aaa";  
        switch (str) {  
            case "name":  
                break;  
            case "surname":  
                break;  
            case "forename":  
                break;  
        }  
    }  
}
```

Project Coin에 들어가 있는 예제로
String 타입을 switch 문에 사용한 것이다.
JDK6에서는 빌드 에러 발생한다.

JDK7 Eclipse Plugin이 Beta 이기 때문에 완벽하게 지원하지 않을 수 있다.
Oracle의 Jdk7으로 설치한 Javac 컴파일러만 믿어야 한다.

Eclipse 4.x 다운로드

- Eclipse 3.x 에서는 아직 jdk7을 지원하지 않아서, 대신 jdk7을 지원하는 Eclipse 4.x 다운로드 받기

– <http://download.eclipse.org/e4/sdk/>

Eclipse SDK 4.x Stream downloads

latest downloads from the eclipse e4 project

Latest Downloads

On this page you can find the latest e4 [builds](#). For more information on installing and using any of the builds that you find here, please check out the [getting started](#) page.

All downloads are provided under the terms and conditions of the [Eclipse Foundation Software User Agreement](#) unless otherwise specified.

Eclipse 3.x downloads are [here](#) and other eclipse.org project downloads are available [here](#).

Build Type	Build Name
Latest Releases	4.1
4.2 Stream Stable Build	4.1RC5a
4.2 Stream Integration Build	I20110714-1400
4.1 Stream Maintenance Build	M20110713-2200

Latest Releases

Build Name	Build Date
4.1	Mon, 20 Jun 2011 -- 16:31 (-0400)
4.0	Tue, 27 Jul 2010 -- 15:20 (-0400)

JDK7 문서 다운받기

JDK7 변화 한눈에 보기

- <http://jdk7.java.net/preview/index.html>



JDK 7
Developer Preview Release
Downloads
JDK 7 javadoc
Feedback Forum
OpenJDK
Planet JDK

Java™ Platform, Standard Edition 7 Developer Preview Release

Java SE 7 has reached milestone (M12) and has released a Developer Preview. This release is feature complete, stable, and ready for testing. We would like to enlist you to download and test this release!

What we need you to do:

1. Download
2. Test
 - Run your favorite applications
 - Test the new features (list as below). See new feature documentation.
 - Identify any issues where behavior is different from previous JDK releases. Identify bugs in the new features, including functionality, documentation.
 - File a bug!

Features

Java SE 7 has included new features and enhancements:

vm	JSR 292: Support for dynamically-typed languages (InvokeDynamic) Strict class-file checking [NEW]
lang	JSR 334: Small language enhancements (Project Coin)
core	Upgrade class-loader architecture Method to close a URLClassLoader Concurrency and collections updates (jsr166y)
i18n	Unicode 6.0 Locale enhancement Separate user locale and user-interface locale
ionet	JSR 203: More new I/O APIs for the Java platform (NIO.2) (tutorial on File I/O) NIO.2 filesystem provider for zip/jar archives SCTP (Stream Control Transmission Protocol) SDP (Sockets Direct Protocol) Use the Windows Vista IPv6 stack TLS 1.2
sec	Elliptic-curve cryptography (ECC)
jdbc	JDBC 4.1
client	XRender pipeline for Java 2D Create new platform APIs for 6u10 graphics features Nimbus look-and-feel for Swing Swing JLayer component
web	Update the XML stack.
mgmt	Enhanced JMX Agent and MBeans [NEW]

For more details, please see the [Feature list](#) and the [Summary of changes in JDK 7 Developer Preview Release](#)

Planned Supported System Configurations

Planned Supported System Configurations

믿을 만한 Reference

- 검색엔진에서 'jdk 7' 기능이라고 하는 것은 다 믿을 수 없다.
-> jdk7 이 나올때까지 5년 동안 이것도 들어갈 꺼다, 저것도 들어갈 꺼다 하며 너무 정보가 많이 있었음. 때문에 약간 혼란을 줄 수 있음
- 그렇다면 어디서 정보를 얻지?
 - <http://openjdk.java.net/projects/jdk7/>
 - JSR 336: Java SE 7
 - Proposed Final Draft Specification
 - Java의 공식 문서는 java에서 얻는 것이 가장 좋다. 나머지는 참조만 하는 게 좋다.

믿을 만한 Reference – JSR336

- JSR 336: Java SE 7

The screenshot shows the Java Community Process website for JSR 336. The page includes a navigation bar with the Java logo and 'Community Development of Java Technology Specifications'. Below the navigation bar, there are tabs for 'JSR', 'Update', and 'Expert Group'. The main content area features a table with columns for 'Stage', 'Access', 'Start', and 'Finish'. The table lists various stages of the JSR process, including 'Final Approval Ballot', 'Proposed Final Draft', 'Public Review Ballot', 'Public Review', 'Early Draft Review', 'Expert Group Formation', and 'JSR Review Ballot'. The status is 'In Progress', and the JCP version in use is 2.7. The description states that this is the Umbrella JSR for the seventh edition of the Java SE Platform. A note at the bottom asks users to direct comments to the Spec Lead(s).

Stage	Access	Start	Finish
Final Approval Ballot		05 Jul, 2011	18 Jul, 2011
Proposed Final Draft	Download page	24 Jun, 2011	
Public Review Ballot	View results	31 May, 2011	06 Jun, 2011
Public Review	Download page	05 May, 2011	06 Jun, 2011
Early Draft Review	Download page	11 Mar, 2011	10 Apr, 2011
Expert Group Formation		07 Dec, 2010	01 Mar, 2011
JSR Review Ballot	View results	16 Nov, 2010	06 Dec, 2010

- java_se-7-pfd-annex-2.zip
- java_se-7-pfd-annex-3.zip
- java_se-7-pfd-spec.zip

JSR 336 download final draft

- java_se-7-pfd-spec.zip에 포함된 문서

- Readme.txt

- 문서는 4개로 나누어져 있다.
Spec, annex1, annex2, annex3 에
대한 간략 설명

- java-se-7-pfd-spec.html

- 표준에 대한 설명

- java-se-7-annex-1.html

- 바뀐 부분에 대해서
구체적인 내용 설명

JSR 336: Java SE 7

This specification has four parts:

- The main specification document (java-se-7-pfd-spec.html).
- Annex 1, a detailed specification change summary.
- Annex 2, an annotated API specification showing the exact differences relative to Java SE 6, and
- Annex 3, which contains updated versions of the virtual machine and language specification books.

Annexes 2 and 3 are very large, so they are published as separate downloads. Unpack the zip files containing the annexes into the directory containing this README file in order for the hyperlinks in all the documents to work.

Google Chrome users: The links in these documents will not work correctly when browsing locally, i.e., from a file:// URL, due to a security feature (<http://code.google.com/p/chromium/issues/detail?id=47416>). Launch Chrome with the `--allow-file-access-from-files` option to disable this feature.

JSR 336: Java SE 7

Proposed Final Draft Specification

Mark Reinhold

2011/6/15 16:18 -0700 [35]

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This specification defines the seventh edition of the Java Standard Edition platform. As an "umbrella" JSR this document indirectly specifies significant features, which are themselves specified in related new component JSRs and in maintenance reviews of existing component JSRs. This JSR directly specifies smaller features, enhancements, and bug fixes that are not part of any component JSR. The specifications of those

JSR 336: Java SE 7

Proposed Final Draft Specification

Annex 1: Specifications of small features, enhancements, and bug fixes

Compiled by Éamonn McManus

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JSR 336 download final draft

- java_se-7-pfd-annex-2.zip에 포함된 문서
 - 어떤 변화가 있는지 API 설명

Java™ Platform
Standard Ed. 7
DRAFT internal-b00

All Classes

Packages

- [java.applet \(changed\)](#)
- [java.awt \(changed\)](#)
- [java.awt.color](#)
- [java.awt.datatransfer \(changed\)](#)
- [java.awt.dnd \(changed\)](#)

All Classes

- [AbstractAction](#)
- [AbstractBorder \(changed\)](#)
- [AbstractButton \(changed\)](#)
- [AbstractCellEditor](#)
- [AbstractCollection \(changed\)](#)
- [AbstractColorChooserPan](#)
- [AbstractDocument \(changed\)](#)
- [AbstractDocument.Attri](#)
- [AbstractDocument \(changed\)](#)
- [AbstractDocument.Center](#)
- [AbstractDocument.Eleme](#)
- [AbstractExecutorService \(changed\)](#)
- [AbstractInterruptibleCha](#)
- [AbstractInterruptibleCha](#)
- [AbstractLayoutCache](#)
- [AbstractLayoutCache.Nod](#)
- [AbstractList \(changed\)](#)
- [AbstractListModel \(changed\)](#)
- [AbstractMap \(changed\)](#)
- [AbstractMap.SimpleEntry](#)
- [AbstractMap.SimpleImmut](#)
- [AbstractMethodError](#)
- [AbstractOwnableSynchron](#)
- [AbstractReference](#)

JSR 336: Java SE 7

Annex 2: API Differences from SE 6 to SE 7

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Specification Statistics

Old Version	Java SE 6	Changed	Added	Removed	Unchanged	Total
New Version	Java SE 7 (b144)	1077	212	0	2080	3369
Processed Packages	132	2774	2304	47	35404	40529

Specification Detail

(*) Columns: (1) - Changed, (2) - Added, (3) - Removed, Σ - Total

Package	Documents				Contexts						
	Modified			Unchanged	Total	Modified			Unchanged	Total	
	1	2	3			Σ	1	2			3
java.applet	1	1	1	5	6	1	1	1	53	54	
java.awt	61	3	64	95	159	192	45	2	239	2908	3147
java.awt.color				0	8	8			0	206	206
java.awt.datatransfer	2	2	2	11	13	6		6	100	106	
java.awt.dnd	7	7	7	18	25	19		19	232	251	
java.awt.event	18	18	18	26	44	59	7	66	490	556	
java.awt.font	10	1	11	10	21	20	43	63	373	436	
java.awt.geom	26	26	26	11	37	48	1	49	695	744	
java.awt.im				0	5	5		0	47	47	
java.awt.im.spi				0	4	4		0	29	29	
java.awt.image	9	9	9	44	53	15		15	889	904	
java.awt.image.renderable				0	8	8		0	109	109	
java.awt.print	1	1	1	10	11	1		1	84	85	
java.beans	26	1	27	13	40	67	9	76	235	311	
java.beans.beancontext				0	24	24		0	212	212	
java.io	48	48	48	32	80	128	1	129	794	923	
java.lang	55	7	62	38	100	243	254	497	1150	1647	
java.lang.annotation	4	4	4	5	9	6		6	33	39	
java.lang.instrument	3	3	3	3	6	10		10	19	29	

Jsr 336 download final draft

- java_se-7-pfd-annex-3.zip 에 포함된 문서
 - The Java™ Language Specification *Java SE 7 Edition*
 - *The Java™ Virtual Machine Specification Java SE 7 Edition DRAFT 2011-06-13*

중요 기능 사항 변경

중요 변경 내역

- JSR292
 - invokeDynamic
 - Strict class-file checking
- Project coin 일부 적용
- Classloader architecture 변화
- JSR166y concurrency and collections update
- NIO 2
- JDBC 4.1
- XML Stack 버전 변경
 - Jaxp 1.4, jaxb 2.2a, jax-ws 2.2

To be continued.. #2