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Getting Started with MyEclipse

By Riyad Kalla & Jens Eckels

ABOUT MYECLIPSE

Downloaded over 10 million times, MyEclipse (<http://www.MyEclipseIDE.com>) is the #1 commercial Eclipse-based IDE, with industry-leading support for Java and Web developers. You will find this card useful for introducing you to MyEclipse, as well as developing valuable knowledge of the expansive feature set.

We'll explore the basics, like how to obtain MyEclipse and install it, the process of getting started on projects, development utilizing everything from source code editors to advanced code completion features, project deployment, advanced debugging and much more. You'll quickly discover that MyEclipse is the logical, Eclipse plugin-based solution for all of your J2EE integrated development environment (IDE) needs.

Each MyEclipse release is available either through the MyEclipse Web site at <http://MyEclipseIDE.com>, or via the popular Pulse tool profiling service at <http://PoweredByPulse.com>. MyEclipse is available for the major platforms, including Windows, Linux and Mac, and offers industry-leading features such as:

- Ajax & Web 2.0 tooling (including advanced JavaScript capabilities)
- Hibernate and Spring integration
- Support for Maven configurations
- Swing GUI design support
- Advanced reporting tools
- Industry-leading Java Persistence tooling and much more!

GETTING MYECLIPSE

You can download MyEclipse a number of different ways, including:

Pulse-optimized Installer	A multi-threaded automatic software provisioning solution that will manifest the MyEclipse install directly onto your machine, handling future updates and dependency management automatically.
All-in-One MyEclipse Installer	This is a classic double-click installer that will install everything you need to get started with MyEclipse immediately.
ArchivedUpdate Site	This is an Archived (ZIP) Eclipse Update Site that you can use when doing your own install of MyEclipse directly into an existing install of Eclipse.

Getting started with MyEclipse is really straight forward, if you are coming from another non-Eclipse-based-IDE, it's good to know the following two things:

Views	This is the term used for individual panels of information (like an Outline, Properties Panel, Server Controls Panel, etc.)
Perspectives	This is a collection of views, typically all related to servicing the same task (e.g. working with a database or working on a web project).

Perspectives

You can quickly flip between the different perspectives in MyEclipse by using the **Perspective Buttons** on the top right of your screen:



Working with huge projects? Increasing memory arguments can improve performance. We recommend using: `-vmargs -Xms128M -Xmx512M -XX:PermSize=64M -XX:MaxPermSize=128M`. You can set these arguments in the shortcut you use to launch MyEclipse, or edit the `eclipse.ini` file under the MyEclipse install directory with them.

There are many different perspectives in MyEclipse, each one geared towards helping you work more efficiently with a certain technology or tool. They are:

Icon	Description
CVS Perspective	For CVS tools and operations
Debug Perspective	For debugging any code you have a breakpoint set in (Java, JSP, JavaScript, etc.)
Java Browsing Perspective	For navigating Java class structures more intuitive in projects
Java Type Hierarchy Perspective	For viewing the hierarchy of types of classes
MyEclipse AJAX Perspective	For working with JavaScript and AJAX technologies
MyEclipse Database Explorer Perspective	For working with configured databases and persistence generation tools

one million users
150 countries
16,000 companies
still only \$30

myeclipseide.com

Perspectives, continued

Icon	Description
	MyEclipse Hibernate Perspective For working with Hibernate configurations, POJOs and HQL queries
	MyEclipse Image Editor Perspective For editing images with simple image editing tools provided
	MyEclipse Java Enterprise Perspective For working with MyEclipse and Web/Java EE Web Projects
	MyEclipse Java Persistence Perspective For working with JPA-based entities and persistence technology
	MyEclipse JavaScript Perspective For working with JavaScript frameworks and source files.
	MyEclipse Report Design Perspective For working with the MyEclipse Reports reporting framework.
	MyEclipse Swing/Matisse Perspective For designing Swing GUIs using the lauded Matisse designer.
	MyEclipse UML Perspective For creating UML Diagrams using reverse/forward engineering or by hand
	Plug-in Development Perspective For working on an Eclipse-based plugin
	Resource Perspective A simple file-explorer-esque view of projects and their contents
	Team Synchronizing Perspective For use with any Team (CVS, SVN, Clear Case, etc.) Commit/Update operations

As a quick reminder, you can lay your perspectives out anyway you'd like, either closing views you don't use or adding ones you use all the time. Be sure to save your changes using: *Window > Save Perspective*.

DEVELOPING WITH MYECLIPSE

Creating Projects

Working in MyEclipse, for the most part, starts first with a Project. You can create many different kinds of projects from the *File > New > Project* menu.

	EJB Project
	Enterprise Application Project
	Java Maven Project
	Java Project
	Report Web Project
	Web Project
	Web Service Project



All projects marked with *[Optional Maven Support]* means that when you create that new project, you'll have an opportunity to enable Maven support on that project and use Maven to handle dependencies, building and even deployment of your project if you like. It's up to you.

Developing with MyEclipse, continued

Editing Source Files

MyEclipse supports editing many different kinds of source files (e.g. Java, JavaScript, HTML, XHTML, JSP, Struts/JSF/Facelet pages). Whenever you open a certain kind of source file, MyEclipse will always open that source file automatically in the best-suited editor for the job. You can force MyEclipse to open source files in different editors by right-clicking on the files and going to the *Open With* context menu.



If you want to permanently change a file-editor relationship, you can do that from the *Window > Preferences > General > Editors > File Associations* preference page.

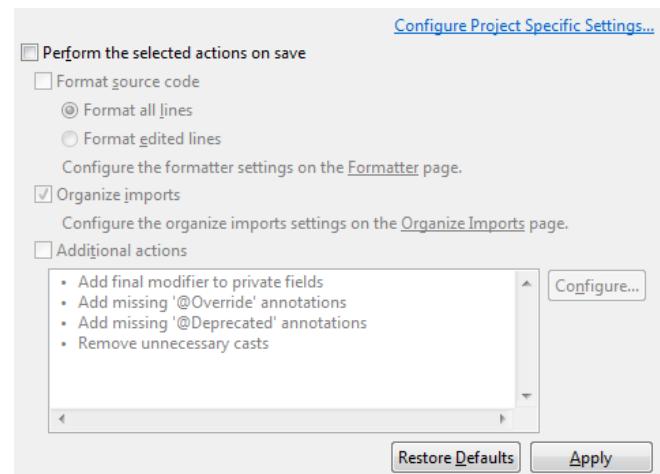
While editing, you can always invoke :

Content Assist	CTRL-Space
Format Code	CTRL-Shift-F
Organize Imports	CTRL-Shift-O

Learning these three shortcuts can save you a lot of time.

You can combine the format code and organize import operation along with more code cleaning features all as part of saving a file (CTRL-S) automatically, so you never have to run it yourself. You can do this from the preference page:

Window > Preferences > Java > Editor > Save Actions



Web Application Development

MyEclipse supports working on Web Projects, EJB Projects and Enterprise Application Projects using the following Java EE specification levels:

- J2EE 1.3
- J2EE 1.4
- Java EE 5



MyEclipse has visual page designers for all the major web technologies like Struts, JSF, Facelets, ICEfaces, JSP and HTML.

Developing with MyEclipse, continued

Tooling

MyEclipse provides tooling for all the most popular persistence technologies, including full reverse-engineering and POJO/DAO generation support for:

- Hibernate
- JPA (Toplink, Hibernate & OpenJPA)
- EJB3

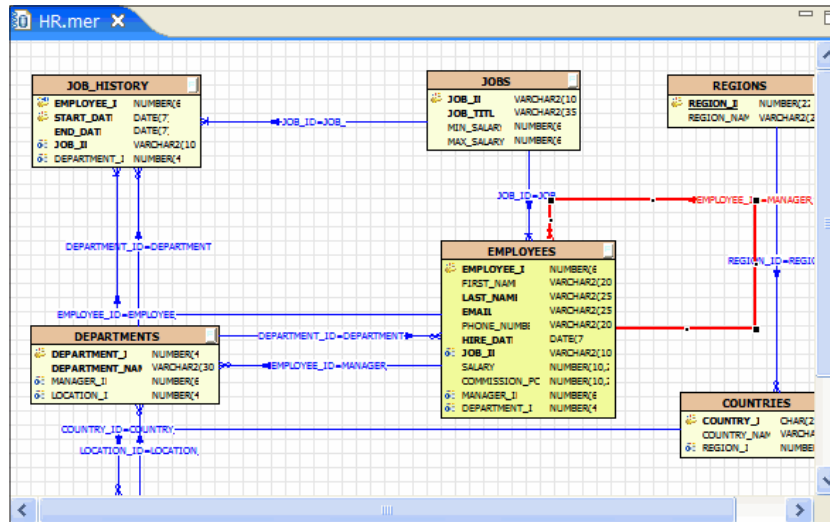
Frameworks

MyEclipse also supports a gamut of web services frameworks, including service and client generation in either bottom-up (from a Class file) or top-down (from a WSDL) scenarios for:

- JAX-WS Web Services and Clients
- WebSphere JAX-WS and JAX-RPC Web Services and Client (Blue Only)
- X-Fire based Web Services and Clients

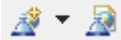
Databases

Database Explorer makes working with your database a snap. An example of how you can visualize your tables and relationships quickly:



Wizards

Most all of the Web Service generation wizards can be launched directly from the tool bar, as well as the Web Service Explorer for testing your services. Just use these buttons to add services or explore:



MyEclipse will automatically handle building the different kinds of projects for you, but also provides support for Ant and Maven, if you prefer to use them, to perform tasks like testing, building or packaging your project.

Deployment & Running

MyEclipse provides integrated support for deploying your projects to your favorite application server (over 30 supported) in two different ways:

Exploded:	Development Mode, where saved changes are immediately hot-synced with the server.
Packaged:	Production Mode, where a single WAR or EAR is created and deployed to the server.

In addition to managing your project deployments from inside the IDE, you can also manage the Start, Stop and Restart cycle for all the most popular application servers, including Tomcat, Glassfish, JBoss, WebSphere, WebLogic, Resin, Jetty and more.

Server	Status	Mode	Location
MyEclipse Derby	Stopped		
MyEclipse Tomcat	Stopped		
MavenProj	OK	Exploded	C:\Users\vaio\workspace2\metadata1\plugins\c
JavaServletExamples	OK	Exploded	C:\Users\vaio\workspace2\metadata1\plugins\c
Resin 3.x	Stopped		



For really tight WebSphere deployment integration, check out MyEclipse Blue Edition—it's MyEclipse for WebSphere developers.

Deployment & Running, continued

In addition to handling deployments and your server run-state independently, you can also run or debug your project even faster by using Run As or Debug As *MyEclipse Server Application* from the project's right-click context menu.

MyEclipse also includes an embedded version of Tomcat as well as the Derby DB, allowing you to develop DB-enabled Web Projects right out of the box with no additional software setup. Or, just test your own projects instantly.



As long as your server was started in Debug mode, you can debug any Class or JSP resource easily while exercising your application by setting a breakpoint in the source editor.

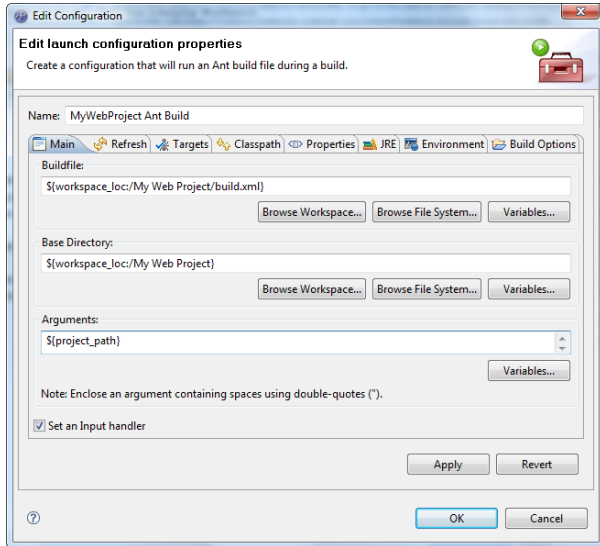
Using Ant or Maven Builders

A handy tip that not many people know is that besides MyEclipse handling builds and deployment for you, if you have custom needs or pre-existing Ant/Maven scripts that you want to use, you can easily integrate these into your build process by adding a custom Ant or Maven builder to your project. This will run the script, and the selected targets, for the following build stages:

- After a Clean
- During a Manual build
- During an Auto build
- During a Clean

The targets to execute for each stage are fully configurable when setting up the custom builder. You can do that by right-clicking on your project and opening *Properties*, then going to *Builders* and clicking *Add*. From there you can configure the custom *builder* of your choice:

Deployment & Running, continued



Keyboard Shortcuts

You can have total control over your keyboard shortcuts in MyEclipse. All shortcuts can be adjusted from the preference page: *Window > Preferences > General > Keys*.

Common Navigation Shortcuts

CTRL-Left Click	Open Declaration
F4	Open Type Hierarchy
CTRL-SHIFT-P	Go to Matching Bracket
CTRL-SHIFT-R	Open Resource
CTRL-O	Quick Outline
ALT-Left Arrow	Back in Edit History
ALT-Right Arrow	Forward in Edit History

Common Coding Shortcuts

CTRL-SHIFT-F	Format
CTRL-SHIFT-O	Organize Imports
ALT-SHIFT-R	Rename (Refactor)
ATL-SHIFT-C	Change Function Sig (Refactor)
CTRL-SHIFT-C	Toggle Comment
CTRL-SHIFT-\	Remove Block Comment

Common Debugging Shortcuts

ALT-SHIFT-D, J	Debug Java Application
CTRL-F11	Run Last Launched
F11	Debug Last Launched
CTRL-SHIFT-I	Inspect Value
F5	Step Into
F6	Step Over
F7	Step Return
F8	Continue Execution
CTRL-SHIFT-B	Toggle Breakpoint

Common View Shortcuts

CTRL-M	Maximize/Restore View
CTRL-F6	Next Editor
CTRL-SHIFT-F6	Previous Editor
CTRL-F8	Next Perspective
CTRL-SHIFT-F8	Previous Perspective
CTRL-E	Quick Switch Editor

WRITE LESS CODE

There are many different ways that MyEclipse helps you write less code. Besides providing some of the best industry-wide code generation wizards, we also provide support for simpler, every-day, enhancement like code templates, code content assist, and content assist templates.

Generate Getters, Setters, Delegates, Constructors

Location	Source menu or right-click context menu from inside a source editor.
Purpose	To automatically generate methods or artifacts that would otherwise take a lot of typing to do.
Usage	Invoke any of the generation commands for the type of resource you would like generated.

- Override/Implement Methods...
- Generate Getters and Setters...
- Generate Delegate Methods...
- Generate hashCode() and equals()...
- Generate Constructor using Fields...
- Generate Constructors from Superclass...

Surround With Alt+Shift+Z ▸

Externalize Strings...

Find Broken Externalized Strings



Using the **Surround With** menu is also a big time saver, especially for Try/Catch blocks.

Code Templates

Location	<i>Window > Preferences > Java > Code Style > Code Templates</i>
Purpose	Allows you to control how certain blocks of code are generated, including default comments or templated variables.
Usage	Automatic, whenever a code generation function is run (e.g. Generator Getters/Setters) it will use any customizations you've set.

- date
- dollar
- file_name
- filecomment
- package_declaration
- package_name
- project_name
- time
- todo
- type_declaration
- type_name
- typecomment
- user
- year

Example #1: Can be used to change how new Class files are generated, to include a company-wide license at the top of the class file in a comment.

Example #2: Can be used to automatically add author, date and project information into a new method with a TODO marker until it's implemented.



Write Less Code, continued

Content Assist

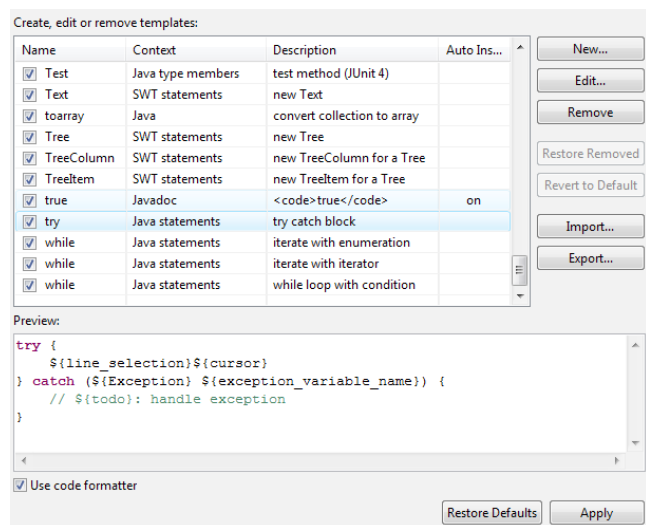
Location	(Inside source code, invoked with CTRL-Space key sequence.)
Purpose	To provide help completing method calls as well as naming variables based on the type they are.
Usage	CTRL-Space while editing, any time, to see if MyEclipse has suggestions for you based on the current context. Completions are location-sensitive.

Example #1: String name = new |<-- Invoke here for 'String', since it will match the type of the variable.

Example #2: MyClass |<-- Invoke here for "myClass" and a few other common variations based on the type name.

Content Assist Templates

Location	Window > Preferences > Java > Editor > Templates
Purpose	To create custom content assist suggestions based on your coding style.
Usage	CTRL-Space while editing, if the name sequence partially matches, will include whatever templates you have created with that name.



Example #1: Create a template "myfor" that creates a complex for-loop, including comments and templated argument variables. Type "my" or "myfor" and hit CTRL-Space to have your template inserted.

Example #2: There is a huge set of pre-defined templates you can already use. For example, try "syzout" and hit CTRL-space.



Code Assist Templates also have a specified "context" that they apply to [e.g. in Javadoc, or in Java source code].

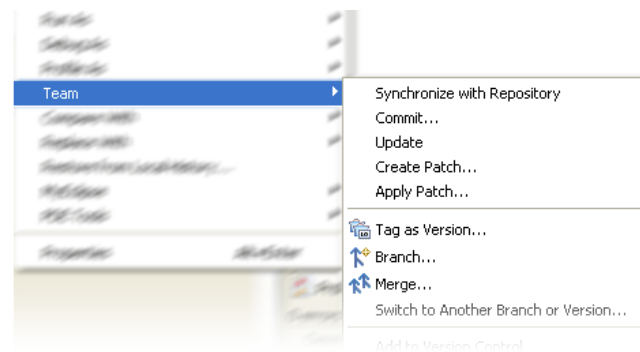
WORK AS A TEAM

MyEclipse supports integrated team source control tools like CVS out of the box. You can add support for your favorite source control system (Subversion, Perforce, Clear Case, etc.) all by adding the appropriate plugin to your MyEclipse install.

Version control allows you to easily keep your work safely versioned and combined with other team-member's work without needing to send emails back and forth to your team members with your changes in them.

Integrated Team (Version Control) operations can all be accessed from the Team menu off of the right-click context menu on your project. This includes:

- Update Commit
- Branch / Tag
- Merge
- Show History
- and every other operation you could need!



EXTENDING MYECLIPSE — PLUG-INS

Since MyEclipse is built on top of the Eclipse platform, you can easily extend it with any of your favorite Eclipse plugins in the same way you might extend Eclipse.



A good resource for plugins is www.eclipse-plugincentral.com.

In addition to finding and installing your own plugins manually, you can use Pulse (www.poweredbypulse.com) to create a MyEclipse-based software profile and then Drag and Drop software from the included software catalog into the profile. Pulse will handle installing and running that for you automatically. You can even share these profiles with friends, co-workers and teams.

WEB SITE REFERENCES

By reviewing and utilizing the helpful hints in this guide, you've already placed yourself a step ahead of the competition. MyEclipse is a pervasive tool in the Eclipse space, and there are multiple Web sites you can visit for more information and helpful hints.

Web Site References, continued

We recommend the following specific sites to get the most out of your MyEclipse experience.

Web Resources	Description
MyEclipse Home Page myeclipseide.com	Where it all begins for MyEclipse users. Includes links for education, support and more.
MyEclipse Blue Edition myeclipseide.com/blue	Explore all that MyEclipse Blue Edition has to offer for WebSphere users.
MyEclipse Blog jroller.com/myeclipseblog	The best way to keep up with MyEclipse happenings.
MyEclipse Webinars myeclipseide.com/webinars.html	Free Webinars that demonstrate some of the most popular features of MyEclipse.

Web Resources	Description
Pulse poweredbypulse.com	Genuitec's powerful Eclipse tool profiling solution - can help manage MyEclipse.
Genuitec genuitec.com	Genuitec, the parent company behind MyEclipse and Pulse products.
Eclipse Zone http://eclipse.dzone.com	Community for Eclipse users and developers.
Eclipse Plugin Central eclipseplugincentral.com	The best and most extensive repository of Eclipse plugins.
Eclipse Foundation eclipse.org	Genuitec is a strategic member of the Eclipse Foundation.

ABOUT THE AUTHORS



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Riyad is the Product Services Manager for Genuitec, creators of the award-winning MyEclipse IDE and Pulse provisioning platform. He has been in software development for over 10 years, with many of those years heavily involved with Java and the Open Source community. This experience has provided him unique insight into the challenges that Java, Eclipse and enterprise developers face. Riyad also served as the editor of the popular EclipseZone portal, part of the popular DZone network.



Jens Eckels

Jens is the Marketing Manager for Genuitec. Jens has been involved in technical writing and marketing for Eclipse-based technologies for years, and is heavily active in the virtual and social communities around Java development. He is currently active with the Eclipse Foundation marketing efforts, and evangelizes Eclipse and MyEclipse technologies heavily.

MyEclipse Blog

<http://www.jroller.com/myeclipseblog/>

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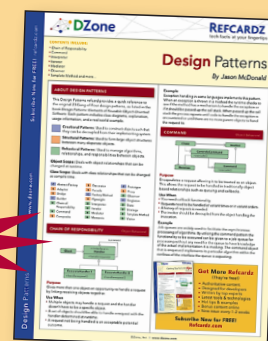
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- Core CSS: Part III
- Hibernate Search
- Equinox
- EMF
- XML
- JSP Expression Language
- ALM Best Practices
- HTML and XHTML

Available:

- Essential Ruby
- Essential MySQL
- JUnit and EasyMock
- Getting Started with MyEclipse
- Spring Annotations
- Core Java
- Core CSS: Part II
- PHP
- Getting Started with JPA
- JavaServer Faces
- Core CSS: Part I
- Struts2
- Core .NET
- Very First Steps in Flex
- C#
- Groovy
- NetBeans IDE 6.1 Java Editor
- RSS and Atom
- GlassFish Application Server
- Silverlight 2

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