

JetBRAINS

**R#** ReSharper



# JetBrains ReSharper

Intelligently enhancing Microsoft Visual Studio

## Key Features of ReSharper™

### Comprehensive C# 3.0 support

ReSharper 4 supports all new language elements available in C# 3.0. Code analysis, coding assistance, refactorings and other ReSharper's feature sets allow you to comfortably work with implicitly typed variables and arrays, extension methods, object and collection initializers, automatic properties, anonymous types, lambdas and LINQ.

### Error highlighting and quick-fixes

ReSharper analyzes and highlights errors in your C# code while you type, without having to compile it first. It also helps you solve problems instantly, by suggesting quick-fixes for most errors.

### Advanced coding assistance

To help improve your productivity, ReSharper takes care of almost all coding aspects. It not only extends and improves native Visual Studio features, such as code completion, but also enables you to quickly generate code using various templates, view documentation for types and their members right in the editor and perform code transformations using context actions.

*"On a recent project, I was writing some code in front of a client employee, a novice developer himself, and he exclaimed "The code is just writing itself"*

Christopher Bennage

Software developer and consultant

Blue Spire Consulting, Inc

## What is ReSharper™?

JetBrains ReSharper is a state-of-the-art tool for Visual Studio designed to help your development team become significantly more productive.

ReSharper's extensive set of productivity-boosting features includes:

- **Error highlighting and quick-fixes** – ReSharper analyzes your code continuously, before you compile, to identify problems and is usually able to suggest a quick-fix for any problem found.
- **Code generation** – quick generation of type constructors, properties, interface implementation and more!
- **Refactorings** – ReSharper provides an industry-leading set of refactorings to help you easily and speedily improve both the structure and the maintainability of your code.
- **Code formatting** – fully customizable code style configuration, syntax highlighting and comprehensive code cleanup!
- **Coding assistance** – quick and powerful code completion and transformation features, which greatly extend Visual Studio's native capabilities.
- **Navigation and search** – rapid navigation and search capabilities via a single shortcut.
- **Visual Basic .NET support** – coding assistance, navigation and search, refactorings, syntax highlighting and many more ReSharper features are available to VB.NET developers!
- **And a lot more** – ReSharper also provides code templates, unit testing and support for ASP.NET, XML, XAML, NAnt and MS Build Scripts.

## But I'm already productive! Why should I use ReSharper?

ReSharper fully integrates with Visual Studio providing you with new and speedy ways to generate, format, analyze and fix your code directly from within Visual Studio. ReSharper is extremely easy to use and will help boost your productivity by enabling you to work both significantly faster and much more accurately than it would be possible using only plain vanilla Visual Studio.

## But doesn't Visual Studio already do the exact same things as ReSharper?

Yes and no. ReSharper intelligently and powerfully extends functionality that is native to Visual Studio. Take refactorings, for example. Visual Studio 2008 natively provides 7 refactorings.

## More Key Features

### Numerous refactorings

ReSharper now provides a much wider set of automated code refactorings than Visual Studio 2008. In total, 34 different refactorings are available that allow you to rename, move, and safely delete symbols; introduce and inline fields, variables, parameters and methods; convert methods to indexers or properties, abstract classes to interfaces, properties to auto properties, and that's not even half the list!

### Navigation and search

Whenever you need to find a certain type, field, method, or any other symbol, ReSharper provides you with a variety of ways to do it. You can find a symbol by name, navigate to a symbol declaration from its reference in the code, or find and highlight symbol usages. ReSharper also allows you to thoroughly review type hierarchies and file structures, with dedicated tool windows that are smartly integrated into Visual Studio user interface.

### Unit testing

ReSharper automatically detects whether your project contains unit tests within a supported test framework. It allows you to run and debug tests right from the code editor and at the same time provides you with a dedicated window where you can analyze test results and re-run unit tests.

ReSharper, on the other hand, provides 34 refactorings including Introduce Parameter, Copy Type, Move Type, Convert Method to Indexer, Inline Method and Change Method Signature, as well as a number of refactorings specifically supporting C# 3.0, such as Convert Static to Extension Method, Convert Property to Auto Property and much more.

But what else does ReSharper add to Visual Studio 2008? Read on!

## What ReSharper adds to Visual Studio 2008

ReSharper extends Visual Studio's functionality with a set of cutting-edge enhancements. While ReSharper's features are too many to list in detail in this document, the following should be sufficient to whet your appetite:

- **Error highlighting and quick-fixes** – Visual Studio 2008 highlights compiler errors and warnings, but only after you compile. ReSharper takes things to the next level by analyzing code in your whole solution while you type, and highlighting errors before you compile. But that's not where it ends: ReSharper uses different highlighting to indicate different types of errors. Undefined symbols are highlighted in red, all other errors are underlined in red. Warnings about dead code, such as redundant using directives and unused private methods, are highlighted in grey or underlined in blue. Last but not least, code suggestions and hints underlined in green provide insights into code structure, drawing your attention to things that are useful to know.

Hover the mouse over any highlighted or underlined text, and you'll see some additional information relating to the error.

Errors can be easily and instantly fixed simply by hitting **Alt+Enter** or by clicking on the light bulb symbol, which appears to the left of the error, and selecting the desired fix.

ReSharper's warnings, suggestions and hints are completely customizable; except for compiler warnings, you can easily switch a specific warning on or off. Additionally, ReSharper makes it possible to instantly see whether your solution contains errors. Simply check the error indicator in the status bar: if it's red, there are errors in your code.

To find errors, it's not necessary to manually scroll through and scan your code. ReSharper adds a sidebar to Visual Studio's UI where all errors, warnings and suggestions are listed. To navigate to a section of code which contains an error, you simply need to click on the appropriate entry in the sidebar. To make navigation even faster, you can move between errors simply by hitting one of two simple shortcuts.

The ability to quickly identify and fix errors might well be sufficient in itself to convince you to invest in ReSharper but, should you need more reasons, keep on reading!

## Key Features

### ASP.NET editing

Now you can edit ASP.NET files with both pleasure and increased productivity. Take advantage of error highlighting, quick-fixes and context actions, coding assistance, navigation, refactoring, and other features. With ReSharper, you can easily edit and refactor C# code within ASP.NET, as well as web control properties and events, data sources and content placeholders.

### NAnt and MS Build Scripts Editing

Advanced editing capabilities, previously available only for C#, are now extended to NAnt and MSBuild scripts. As soon as you open a build script file in Visual Studio with ReSharper installed, full coding assistance is available immediately.

### VB features

ReSharper extends its smart features to VB.NET code. These include all of ReSharper's navigation and search features, coding assistance, refactorings, as well as syntax highlighting, quick documentation lookup, and more.

### Cross-language features

ReSharper's powerful productivity features, including refactorings, navigation and search, take code in all supported languages into account. You can also define common naming conventions and file headers, and collect to-do items from all languages (C#, VB.NET, XML, XAML, and ASP.NET).

- **Refactorings** – ReSharper includes a range of powerful refactorings. To apply a refactoring, simply select it from ReSharper's Refactor menu, or hit **Ctrl+Shift+R** to see an intelligently targeted context menu with refactorings that can be applied to the current position or selection.
  - *Move Type*: enables you to quickly move a class, struct, delegate or enum to another namespace or isolate it in a separate file.
  - *Introduce Parameter*: using this refactoring you can quickly add a new parameter to a method from a local variable or a constant inside its body with all calls being automatically updated.
  - *Make Method Non-Static*: enables you to easily convert a static method into an instance method with all calls being automatically updated.
  - *Inline Method*: allows you to replace a method call with method body at specific point or all over your code.
  - *Convert Property to Auto Property*: consistent with C# 3.0 capabilities, removes explicit private fields in properties.
  - *And a lot more*: in fact, ReSharper includes 29 more refactorings, all of which can be used to help you simplify your code and make it significantly more maintainable. Furthermore, ReSharper supports cross-language refactoring: if you refactor in C#, the refactoring will be applied in VB.NET too.
- **Code templates** help you automatically generate commonly used blocks of code. Fast! ReSharper provides a number of templates which help you work more efficiently:
  - *Live Templates* enable you to speedily and automatically insert the most frequently used constructs into your code. Live Templates are a supercharged version of Visual Studio's Code Snippets. Live Templates are smarter, though: they predict variables, types and fields that could be used and present them to you as a list. With Live Templates, you usually don't need to type anything at all – you simply make a selection from the list.
  - *"Surround with" Templates* – simply select an expression, statement or a block of code, and use "Surround with" Templates to quickly and easily enclose the selection with *try/catch*, *if/else* or another construct.
  - *File Templates* enable you to quickly add a file containing a piece of predefined code to a project.

The templates included with ReSharper are completely customizable. You can control and edit them to match your specific needs using a user-friendly editor. Additionally, you can easily create your own templates and share them with other members of your development team.

## Pricing

ReSharper is available in 3 editions:

- Full Edition
- C# Edition
- VB.NET Edition

Each of them is priced separately, and with respect to the license type: Commercial, Personal or Academic.

For more detail, please check the Licensing page at ReSharper web site.

- **Code formatting** – ReSharper takes code formatting to a whole new level. Clean up your code according to customizable style settings, optimize *using* directives, reorder type members, remove redundancies and a whole bunch more! ReSharper makes it a snap to beautify and simplify your code!
- **Coding assistance** – ReSharper intelligently and powerfully extends Visual Studio's coding assistance capabilities with:
  - *Code completion* – context sensitive pick lists can save you hours of typing by enabling you to quickly insert values into your code. *Symbol completion* completes names of currently visible types, members and variables, *Import Symbol completion* completes names of *types and extension methods* located anywhere in the solution (and inserts using directives if required), and *Smart completion* filters the list of *types, methods, and variables* to match the expected *type* of an expression when completing code.
  - *Context actions* are designed to quickly implement small code transformations.
  - *Parameter info* extends the functionality of Visual Studio by displaying all possible parameters and method signatures and graying out incompatible signatures as new arguments are added.
  - *Other goodies* – ReSharper further extends the functionality of Visual Studio's auto-completion with bracket matching, auto-insertion of brackets and quotes, quick commenting and uncommenting code, extending/shrinking selections, as well as duplicating lines or selections of code.
- **Visual Basic .NET Support** – many of the powerful features outlined above are available to VB.NET developers, including:
  - Import Symbol and Smart code completion.
  - Many cross-language refactorings.
  - Coding assistance
  - And more!

## Summary

This document provides only a brief outline of some of ReSharper's innovative and easy-to-use features.

To find out more about how ReSharper can help improve your team's productivity, either visit our website or, better yet, download a copy of Re Sharper and take it for a test drive. You'll soon be wondering how you ever lived without ReSharper!

## Try ReSharper today

Like all JetBrains' products, ReSharper can be downloaded from our website and tested for a period of 30 days. No cost. No risk.

## About JetBrains

In February 2000, JetBrains was founded by three engineers with years of front-line experience in the programming industry. Since the launch of its first award-winning product, IntelliJ IDEA, JetBrains has been recognized by industry leading media figures and development professionals for its brilliant innovations in the Java development tools market.

Today, JetBrains is a technology-leading software development company with an international presence and rapidly surging annual sales. Headquartered in Prague, Czech Republic, JetBrains maintains two research and development laboratories, one in St. Petersburg, Russia and the other in Boston, Massachusetts, USA, plus three sales and support offices in North America. JetBrains restricts its teams to high-level professionals with rich experience developing for world-class companies in a diverse array of software development projects.

Since introducing IntelliJ IDEA, JetBrains has been dedicated to creating highly intelligent, easy-to-use, up-to-date productivity-enhancing tools for software development professionals, with an emphasis on the advancement of software development technologies.

## Our Mission

To apply advanced technologies in the software development industry, and to provide the software market with the most intelligent tools that help developers and users of such software work faster, better and more efficiently than ever before.

## For more information

To find out more about JetBrains and our products, please visit our website at [www.jetbrains.com](http://www.jetbrains.com) or e-mail us at [info@jetbrains.com](mailto:info@jetbrains.com).