

Refactorings in Alphabetical Order

This is a simple list of refactorings both from the original book and some later sources. Sadly I haven't had enough time and energy to keep this material up to date. Refactorings marked with **UPDATED** with have some extra material to what's in the Refactoring book. Refactorings marked with **NEW** are in addition to those in the refactoring book. Refactorings with *Link Only* are references to refactorings described elsewhere.

| [Russian](#) | [German](#) |

- [Add Parameter](#)
- [Change Bidirectional Association to Unidirectional](#)
- [Change Reference to Value](#)
- [Change Unidirectional Association to Bidirectional](#) **UPDATED**
- [Change Value to Reference](#)
- [Collapse Hierarchy](#)
- [Consolidate Conditional Expression](#)
- [Consolidate Duplicate Conditional Fragments](#) **UPDATED**
- [Convert Dynamic to Static Construction](#) by Gerard M. Davison **NEW**
- [Convert Static to Dynamic Construction](#) by Gerard M. Davison **NEW**
- [Decompose Conditional](#)
- [Duplicate Observed Data](#)
- [Eliminate Inter-Entity Bean Communication](#) (*Link Only*)
- [Encapsulate Collection](#)
- [Encapsulate Downcast](#)
- [Encapsulate Field](#)
- [Extract Class](#)
- [Extract Interface](#)
- [Extract Method](#)
- [Extract Package](#) by Gerard M. Davison **NEW**
- [Extract Subclass](#)
- [Extract Superclass](#)
- [Form Template Method](#)
- [Hide Delegate](#)
- [Hide Method](#)
- [Hide presentation tier-specific details from the business tier](#) (*Link Only*)
- [Inline Class](#)
- [Inline Method](#)
- [Inline Temp](#)
- [Introduce A Controller](#) (*Link Only*)

- [Introduce Assertion](#)
- [Introduce Business Delegate](#) (*Link Only*)
- [Introduce Explaining Variable](#)
- [Introduce Foreign Method](#)
- [Introduce Local Extension](#) **UPDATED**
- [Introduce Null Object](#)
- [Introduce Parameter Object](#) **UPDATED**
- [Introduce Synchronizer Token](#) (*Link Only*)
- [Localize Disparate Logic](#) (*Link Only*)
- [Merge Session Beans](#) (*Link Only*)
- [Move Business Logic to Session](#) (*Link Only*)
- [Move Class](#) by Gerard M. Davison **NEW**
- [Move Field](#)
- [Move Method](#) **UPDATED**
- [Parameterize Method](#) **UPDATED**
- [Preserve Whole Object](#)
- [Pull Up Constructor Body](#)
- [Pull Up Field](#)
- [Pull Up Method](#)
- [Push Down Field](#)
- [Push Down Method](#)
- [Reduce Scope of Variable](#) by Mats Henricson **NEW**
- [Refactor Architecture by Tiers](#) (*Link Only*)
- [Remove Assignments to Parameters](#)
- [Remove Control Flag](#)
- [Remove Double Negative](#) by Ashley Frieze and Martin Fowler **NEW**
- [Remove Middle Man](#)
- [Remove Parameter](#)
- [Remove Setting Method](#) **UPDATED**
- [Rename Method](#)
- [Replace Array with Object](#)
- [Replace Assignment with Initialization](#) by Mats Henricson **NEW**
- [Replace Conditional with Polymorphism](#)
- [Replace Conditional with Visitor](#) by Ivan Mitrovic **NEW**
- [Replace Constructor with Factory Method](#) **UPDATED**
- [Replace Data Value with Object](#)
- [Replace Delegation with Inheritance](#)
- [Replace Error Code with Exception](#)
- [Replace Exception with Test](#)
- [Replace Inheritance with Delegation](#)
- [Replace Iteration with Recursion](#) by Dave Whipp **NEW**

- [Replace Magic Number with Symbolic Constant](#) **UPDATED**
- [Replace Method with Method Object](#) **UPDATED**
- [Replace Nested Conditional with Guard Clauses](#)
- [Replace Parameter with Explicit Methods](#)
- [Replace Parameter with Method](#)
- [Replace Record with Data Class](#)
- [Replace Recursion with Iteration](#) by *Ivan Mitrovic* **NEW**
- [Replace Static Variable with Parameter](#) by *Marian Vittek* **NEW**
- [Replace Subclass with Fields](#)
- [Replace Temp with Query](#) **UPDATED**
- [Replace Type Code with Class](#) **UPDATED**
- [Replace Type Code with State/Strategy](#)
- [Replace Type Code with Subclasses](#)
- [Reverse Conditional](#) by *Bill Murphy and Martin Fowler* **NEW**
- [Self Encapsulate Field](#)
- [Separate Data Access Code](#) (*Link Only*)
- [Separate Query from Modifier](#)
- [Split Loop](#) by *Martin Fowler* **NEW**
- [Split Temporary Variable](#)
- [Substitute Algorithm](#)
- [Use a Connection Pool](#) (*Link Only*)
- [Wrap entities with session](#) (*Link Only*)

Contributions

Unless otherwise indicated refactorings in this section are described by me (Martin Fowler). Other refactorings are marked with their authors. I have not given these refactorings any detailed review, if you find issues with the refactorings, please get in touch with the author and cc me. Neither Martin Fowler, Addison-Wesley, nor any of the authors imply any warranty with these refactorings.