

Change Class Signature

The Change Class Signature refactoring lets you turn a class into a generic and manipulate its type parameters. The refactoring automatically corrects all calls, implementations and overridings of the class.

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Example

Before	After
<pre>// This is the class whose signature will be changed: public class MyClass { // some code here } public class MyOtherClass { // Here are the references to MyClass: MyClass myClass; void myMethod(MyClass myClass) { // some code here } // some code here } // Now we are going to add two formal type parameters // to MyClass.</pre>	<pre>// Two formal type parameters have been added public class MyClass<Param1, Param2> { // some code here } public class MyOtherClass { // The references to MyClass have changed MyClass<String, Integer> myClass; void myMethod(MyClass<String, Integer> myClass) { // some code here } // some code here } // When performing the refactoring, String // were specified as the default values for // Param1 and Param2 respectively.</pre>

Use cases

- The type parameters can have bounds extending other constructs including other type parameters from another class. For instance, the code like `public class ClassA<T, E>` can be easily transformed to `public class ClassA<T, E extends T>`. However, if the parameter order was initially `public class ClassA<E, T>`, the Change Class Signature refactoring may be useful for changing the parameter order in the class signature as well as in all its usages.
- IntelliJ IDEA can successfully deal with rather complicated cases and can alter parameters and corresponding usages if one parameter depends on another.

Changing a class signature

1. In the editor, place the cursor within the name of the class whose signature you want to change.
2. Do one of the following:
 - Press **Ctrl+F6**.
 - Choose **Refactor | Change Signature** in the main menu.
 - Select **Refactor | Change Signature** from the context menu.
3. In the [Change Class Signature dialog](#), use the available controls to manage the formal type parameters:
 - To add a new parameter, click **+** or press **Alt+Insert**. Specify the parameter name and default type in the **Name** and the **Default Value** fields respectively.
 - To remove a parameter, select the parameter and click **-** (**Alt+Delete**).
 - To move a parameter up or down in the list, select the parameter and then use **↑** (**Alt+Up**) or **↓** (**Alt+Down**).
4. To perform the refactoring right away, click **Refactor**.
To [see the expected changes](#) and make the necessary adjustments prior to actually performing the refactoring, click **Preview**.

See Also

Reference:

- [Change Class Signature Dialog](#)

Web Resources:

- [Developer Community](#) 