

Replace Inheritance with Delegation

The **Replace Inheritance With Delegation** refactoring allows removing a class from inheritance hierarchy, while preserving the functionality of the parent. IntelliJ IDEA creates a private inner class, that inherits the former superclass or interface. Selected methods of the parent are invoked via the new inner class.

Example

Before	After
<pre>// File Class.java public class Class extends SuperClass { public int varInt; public void openMethod() { ... } } // File SuperClass.java public abstract class SuperClass { public static final int CONSTANT=0; public abstract void openMethod(); public void secretMethod() { ... } }</pre>	<pre>// File Class.java public class Class { public int varInt; private final MySuperClass superClass; public SuperClass getSuperClass() { return superClass; } public void openMethod() { superClass.openMethod(); } private class MySuperClass extends SuperClass { public void openMethod() { ... } } } // File SuperClass.java UNCHANGED public abstract class SuperClass { public static final int CONSTANT=0; public abstract void openMethod(); public void secretMethod() { ... } }</pre>

To replace inheritance with delegation

1. Select the class.
2. Open the [Replace Inheritance With Delegation](#) dialog box by choosing **Refactor | Replace Inheritance With Delegation** on the main menu, or on the context menu of the selection.
3. In the **Replace with delegation inheritance from** field, select the parent object, inheritance to which will be replaced.
4. Specify the name for the field of the new inner class.
5. In the **Inner class name** field, specify the name for the inner class definition.
6. In the **Delegate members** area, select the members of the parent class, that will be delegated through the inner class.
7. To create a getter for the inner class, select the **Generate getter for delegated component** check box.
8. To review the intended changes and make final corrections prior to the refactoring, click **Preview**. To apply the changes immediately, click **Refactor**.

See Also

Reference:

- [Replace Inheritance with Delegation Dialog](#)

Web Resources:

- [Developer Community](#) 

