Contracts for Java
C4J 4.0 Beta

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Referenten:
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What is a contract?

Customer and supplier close a contract
Pre- and postconditions

```
mA(int, int) : int
```

Pre-conditions

Post-conditions
Assertions in Java

```java
public double inverse(double x) {
    assert x != 0 : "x_not_0";

    return 1.0 / x;
}
```

Assertions in Java can not be applied on an abstract level
and can not be inherited to a subclass!
Drawbacks and opportunities

• No experience in productive systems
• Performance
• Code must be executed to trigger contracts

• Universal contracts possible (hashCode, equals)
• Contracts for 3rd party code possible
• Contract inheritance
• Contracts are refactoring safe
• Executable specification/documentation for interfaces and classes
• Helps detecting bugs during runtime

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More information

- https://github.com/C4J-Team/C4J
- Eclipse Public License Version 1.0
- Eclipse Plugin available soon