

Java关于克隆与“冷藏”和“解冻”方法 PDF转换可能丢失图片或格式，建议阅读原文

https://www.100test.com/kao_ti2020/271/2021_2022_Java_E5_85_B3_E4_BA_8E_c104_271653.htm

```
import java.awt.Point;
import java.io.IOException;
import com.sun.corba.se.impl.io.OptionalDataException;
/** * 克隆测试 *
以方形类为例，比较了深克隆(deep clone)与浅克隆(shallow clone)的异同 * * @see #clone() * @author 88250 * @version 1.0.0,
2007-8-26 */
public class CloneTester {
    private Square square = new Square();
    private Square cpySquare = null;
    /** * 浅克隆操作 */
    public void shallowClone() {
        square.setSideLength(2);
        square.setLocation(new Point(2, 5)); // 浅克隆
        cpySquare = (Square) square.clone();
    }
    /** * 深克隆操作 */
    public void deepClone() {
        square.setSideLength(3);
        square.setLocation(new Point(1, 3)); // 深克隆
        try {
            cpySquare = (Square) square.deepClone();
        } catch (OptionalDataException e) {
            e.printStackTrace();
        } catch (IOException e) {
            e.printStackTrace();
        } catch (ClassNotFoundException e) {
            e.printStackTrace();
        }
    }
    /** * 克隆结果输出 */
    public void cloneDisplay() {
        System.out.println("原始方形长度：" + square.getSideLength());
        System.out.println("克隆方形长度：" + cpySquare.getSideLength());
        System.out.println("原始方形==克隆方形?" + (square == cpySquare));
        System.out.println("原始方形的位置==克隆方形的位置?" + (square.getLocation() == cpySquare.getLocation()));
    }
    public static void main(String[] args) {
        CloneTester sm = new CloneTester();
        sm.shallowClone();
        sm.cloneDisplay();
        sm.deepClone();
    }
}
```

```

sm.cloneDisplay(). }} import java.awt.Point.import
java.io.ByteArrayInputStream.import
java.io.ByteArrayOutputStream.import java.io.IOException.import
java.io.ObjectInputStream.import
java.io.ObjectOutputStream.import java.io.Serializable.import
com.sun.corba.se.impl.io.OptionalDataException./** * 正方形 * *
@author 88250 * @version 1.0.0, 2007-8-26 */public class Square
implements Cloneable, Serializable{ private Point location = new
Point(0, 0). private float sideLength = 1F. @Override public Object
clone() { Square tmp = null. try { tmp = (Square) super.clone(). }
catch (CloneNotSupportedException cnse) {
cnse.printStackTrace(). } finally { return tmp. } } /** * 深克隆方法 *
@return */ public Object deepClone() throws IOException,
OptionalDataException, ClassNotFoundException { // 首先将对象
写到流里 ByteArrayOutputStream bo = new
ByteArrayOutputStream(). ObjectOutputStream oo = new
ObjectOutputStream(bo). oo.writeObject(this). // 然后将对象从
流里读出来 ByteArrayInputStream bi = new
ByteArrayInputStream(bo.toByteArray()). ObjectInputStream oi =
new ObjectInputStream(bi). return (oi.readObject()). } /** *
@return the location */ public Point getLocation() { return location.
} /** * @param location the location to set */ public void
setLocation(Point location) { this.location = location. } /** *
@return the sideLength */ public float getSideLength() { return
sideLength. } /** * @param sideLength the sideLength to set */ public
void setSideLength(float sideLength) { this.sideLength = sideLength.

```

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