

Memento Pattern

(Chad Bogue)가 .

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. originator caretaker, memento ' 가 .

: ?

: originator . , .

. caretaker . , . memento

```
public class TextBox {
    // state for memento
    private String text = "";

    // state not handled by memento
    private int width = 100;
    private Color textColor = Color.BLACK;

    public void type(String s) {
        text += s;
    }

    public Memento save() {
        return new Memento(text);
    }

    public void restore(Memento m) {
        this.text = m.getText();
    }

    @Override
    public String toString() {
        return "[" + text + "]";
    }
}
```

: memento .

```
public final class Memento {
    private final String text;
```

```

public Memento(String text) {
    this.text = text;
}

public String getText() {
    return text;
}
}

```

: 가 caretaker .

```

// open browser, init empty textbox
TextBox textbox = new TextBox();

// type something into it
textbox.type("Dear, Madonna\n");
textbox.type("Let me tell you what ");

// press button save
Memento checkpoint1 = textbox.save();

// type again
textbox.type("song 'Like A Virgin' is about. ");
textbox.type("It's all about a girl...");

// suddenly browser crashed, restart it, reinit textbox
textbox = new TextBox();

// but it's empty! All work is gone!
// not really, you rollback to last checkpoint
textbox.restore(checkpoint1);

```

: , .

: originator, caretaker, memento - . save restore

```

(defn textbox (atom {}))

(defn init-textbox []
  (reset! textbox {:text ""
                   :color :BLACK
                   :width 100}))

(defn memento (atom nil))

(defn type-text [text]
  (swap! textbox

```

```

(fn [m]
  (update-in m [:text] (fn [s] (str s text))))))

(defn save []
  (reset! memento (:text @textbox)))

(defn restore []
  (swap! textbox assoc :text @memento))

```

```

(init-textbox)
(type-text "'Like A Virgin' ")
(type-text "it's not about this sensitive girl ")
(save)
(type-text "who meets nice fella")
;; crash
(init-textbox)
(restore)

```

```

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:      ,      가      .
:      ?
:      String      .      가
가      ,      (deep copy)      가
.
:      ,      .      clone()      .
:      ,      (save)      (restore)
, originator caretaker      .

```

- [Clojure Design Patterns](#)

From:
<http://jace.link/> - **Various Ways**

Permanent link:
<http://jace.link/open/memento-pattern>

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