

# STANDARD WIDGET TOOLKIT

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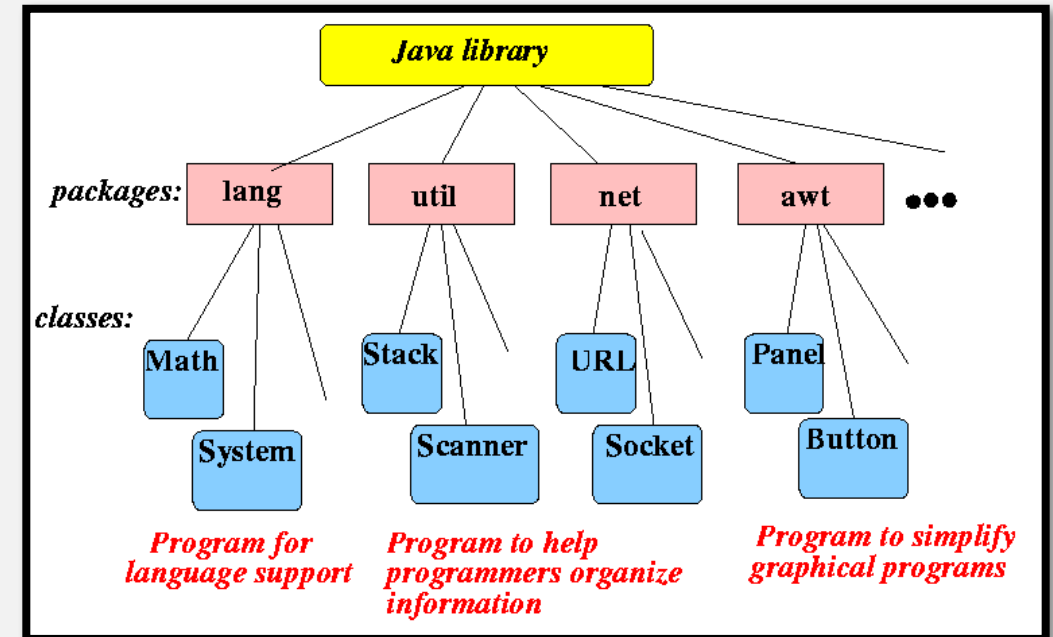
# INTRODUCTION

## I. WHAT IS SWT AND WHY DOES IT EXIST?

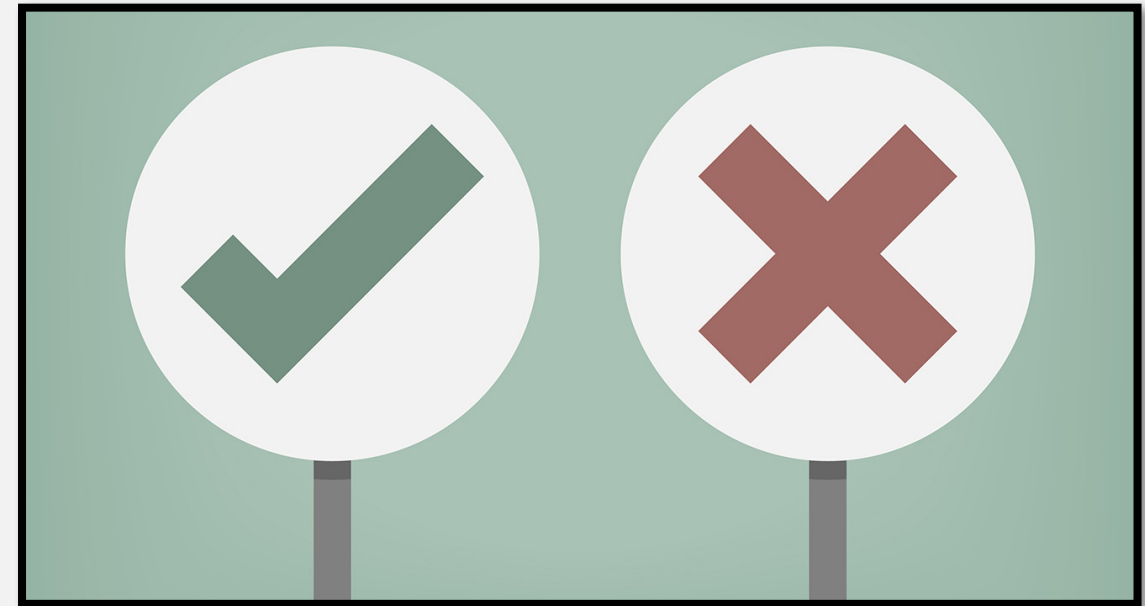
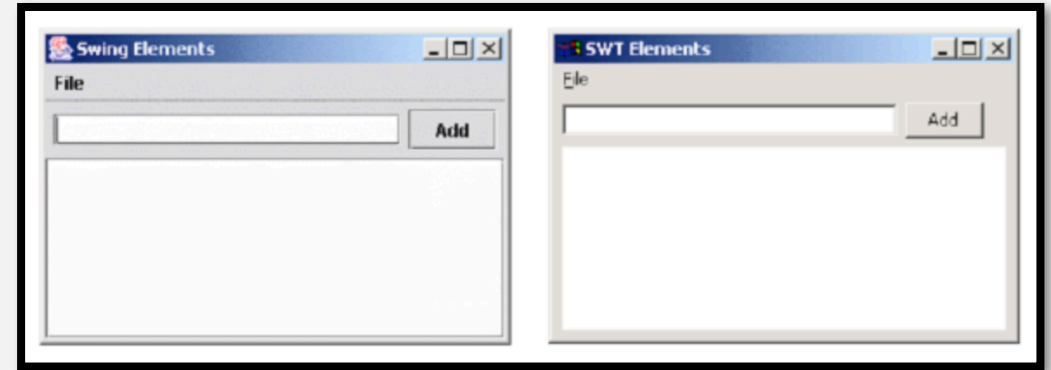
**“Retrieves the original idea of the AWT library to use native components”**



## 2. LIBRARIES



### 3. SWT VS SWING



## 4. HOW TO USE IT

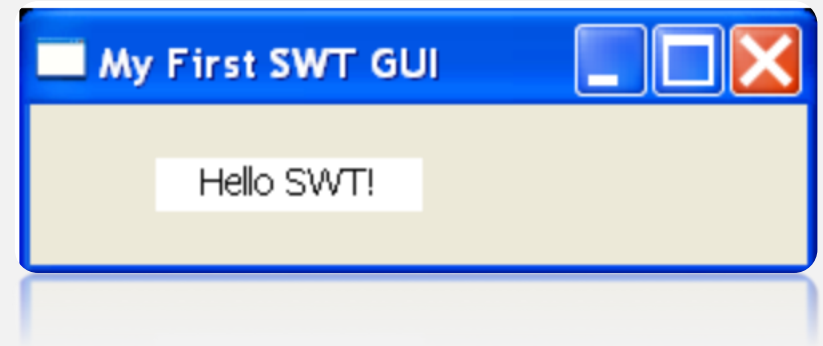
## 5. BASICS ELEMENTS

Shell

Display

Main Widgets

Basic Container



Line 2|



**Combo**

One

**Button** (SWT.PUSH)



**DateTime**

Jack and Jill went up  
the hill to fetch a pail  
of water, Jack fell  
down and broke his  
crown and Jill came  
tumbling after!

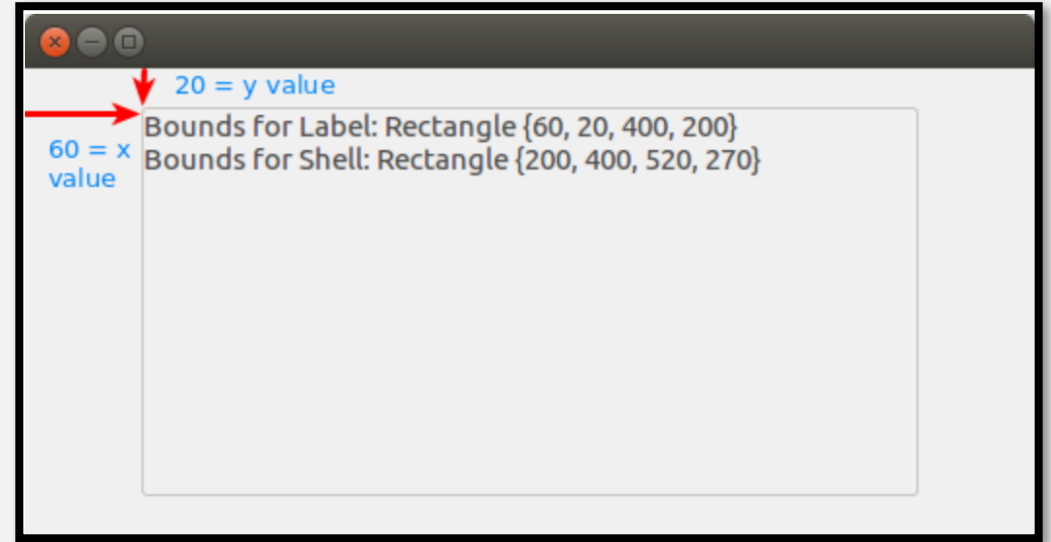
**Label**



IN DEEP

# I. CREATING A JAVA APPLICATION USING SWT

## 2. POSITIONING WIDGETS



`setBounds` defines both position and size. You can also use `setLocation` and `setSize` to define the position.

### 3. A BIT MORE COMPLEX EXAMPLES

## 4. EVENT ORIENTED PROGRAMMING

### 4.1 SWT Events

- SWT uses the observer design pattern based event model.
- Multiple listeners can be registered to be notified.
- In SWT, only Widgets and Displays can have event listeners.

## 4. EVENT ORIENTED PROGRAMMING

### 4.2 Types of listeners

- **Untyped listeners** can lead to smaller code.
  - offer a generic, low-level mechanism to listen for events.
- **Typed listeners** lead to more modular designs.
  - can be used to listen for only one particular typed event. For example, `SelectionListener` is a typed listener for event `SelectionEvent`.

## 4. EVENT ORIENTED PROGRAMMING

### 4.2.1 Untyped listeners

- The untyped listener interface is represented by the Listener interface
- It contains one method: void handleEvent(Event event)
- To add an untyped listener to a widget, call addListener() on it.

```
void addListener(int eventType, Listener listener)
```

- eventType contains one of the event type constants from the SWT class.

## EVENTS TYPES FROM SWT CLASS

- Falta ver como pongo los tipos



## 4. EVENT ORIENTED PROGRAMMING

### 4.2.2 Typed listeners

- Typed listeners use classes and interfaces specific to each possible event.
- All typed events ultimately derive from a common class: `TypedEvent`.
- Some examples:
  - `ControlListener`
  - `KeyListener`
  - `MouseListener`
  - `MouseListener`
  - And more...

## 5. FINAL EXAMPLES

ANY QUESTION?

## REFERENCES

- Eclipse Documentation
  - <https://www.eclipse.org/swt/>
- Vogella Tutorial
  - <http://www.vogella.com/tutorials/SWT/article.html>
- ZenCode Tutorial
  - <http://zetcode.com/gui/javaswt/>
- Wikipedia
  - <https://es.wikipedia.org/wiki/SWT>

GRACIAS POLLOS