

# Introduction to Eclipse, SWT and JFace



# Overview

## 1. Eclipse

1. Short History
2. Coding Environment
3. Plug-Ins and Features

## 2. SWT

1. About SWT
2. Examples
3. SWT Widget Tree

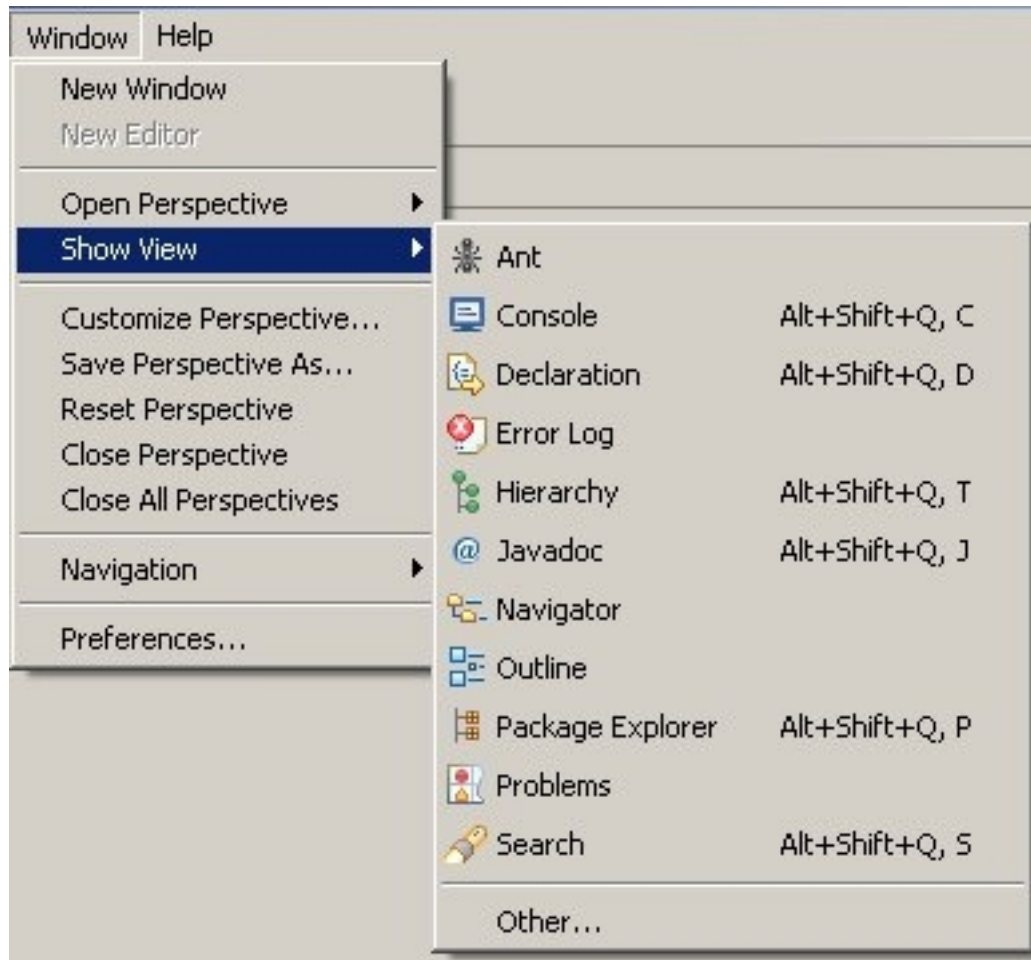
## 3. JFace

1. About JFace
2. Example -> Table

# Eclipse – Short History

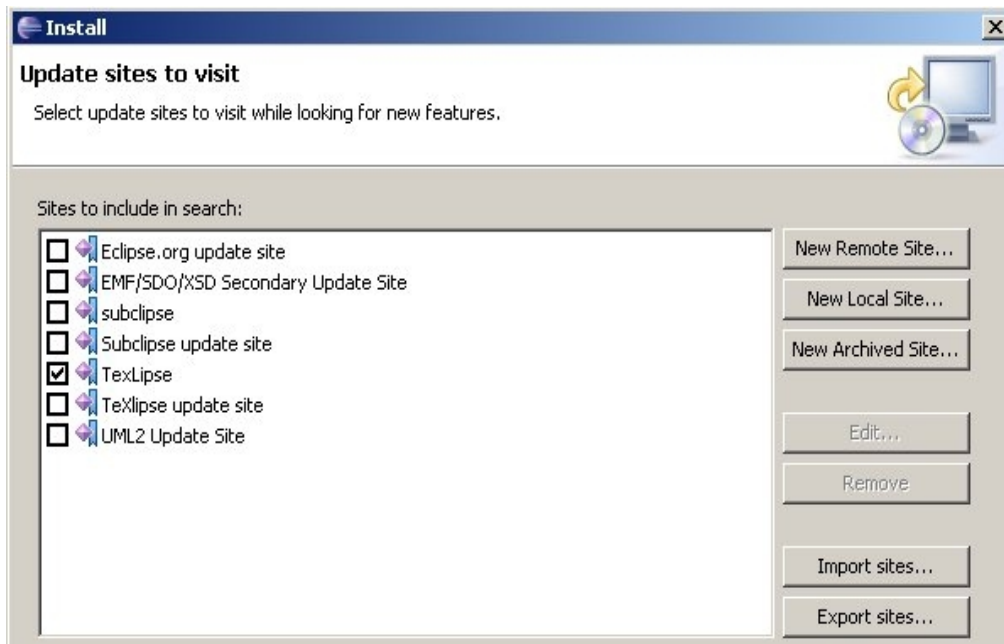
- Developed from IBM Visual Age for Java 4.0
- Open Source since 7. Nov 2001
- Eclipse Foundation started 2. Feb 2004
- RPC (OSGi conform) since Version 3.0
- Eclipse 3.3 released 25.06.07

# Eclipse – Coding Environment



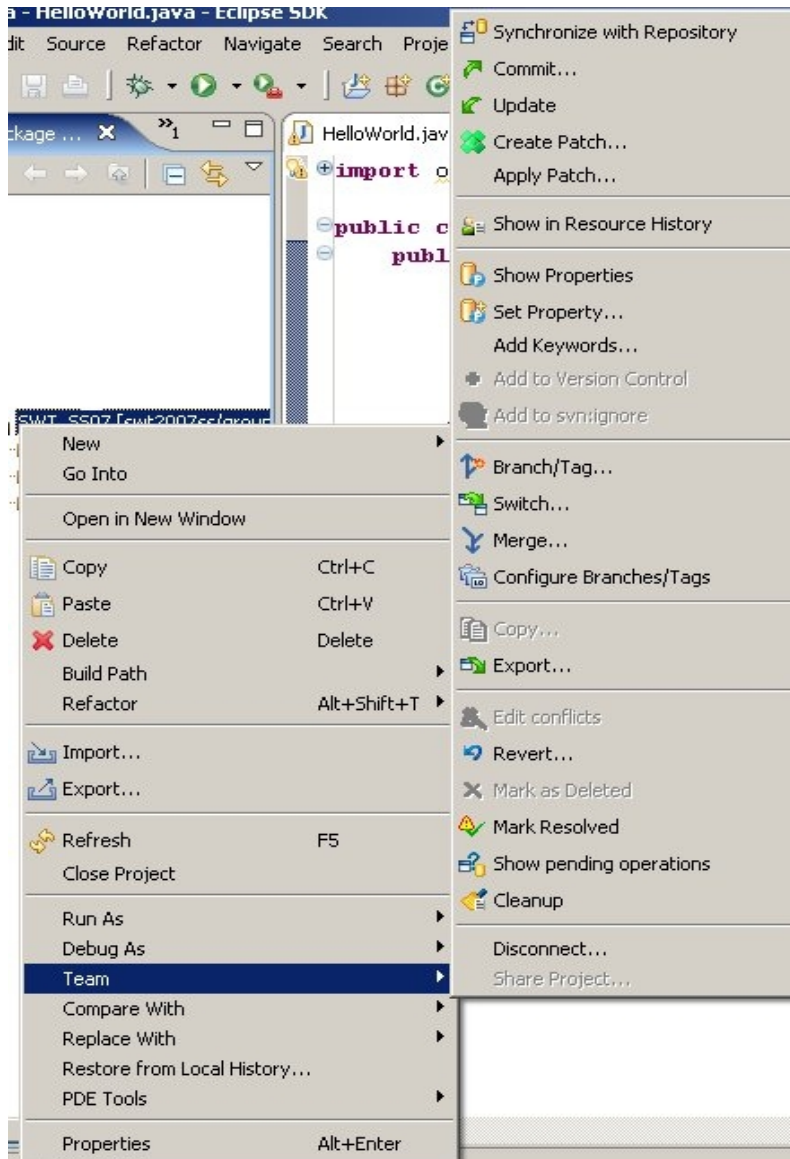
- Workspaces
- Views
- Perspectives
- Editor

# Plug-Ins and Features



- Easy Updating with integrated UpdateManager
- Many different Plug-Ins for various purposes (UI Editing, UML Modelling, SVN ...)

# Subclipse as Example Plug-In



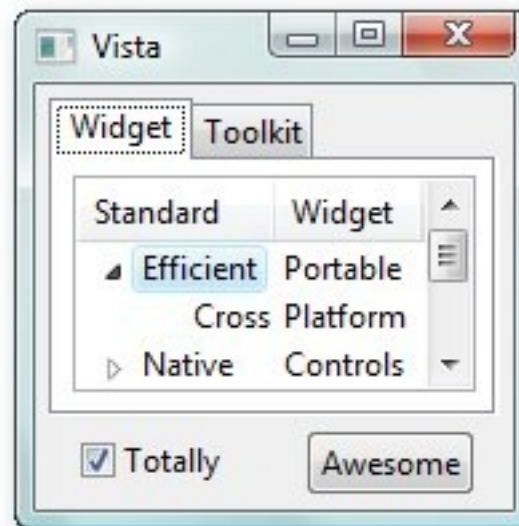
- Often Used:
- Commit and
- Update
- Show in Resource History
- Mark as Resolved

# SWT - About SWT

- Standard Widget Toolkit (2001)
- Library of graphical objects in Java
- Uses native OS GUI elements
- Resources limited by OS, not Java VM

# SWT – Examples

- Look & Feel of running operation system
- 16 Architectures Supported



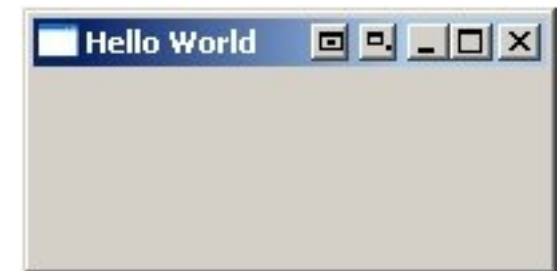


# SWT Examples

```
1 import org.eclipse.swt.*;
2 import org.eclipse.swt.graphics.*;
3 import org.eclipse.swt.widgets.*;

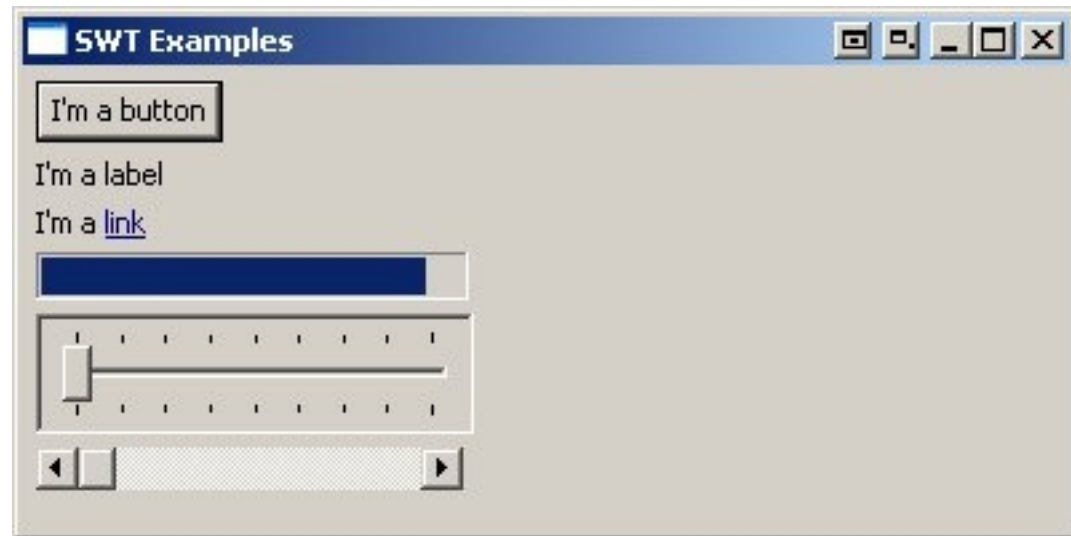
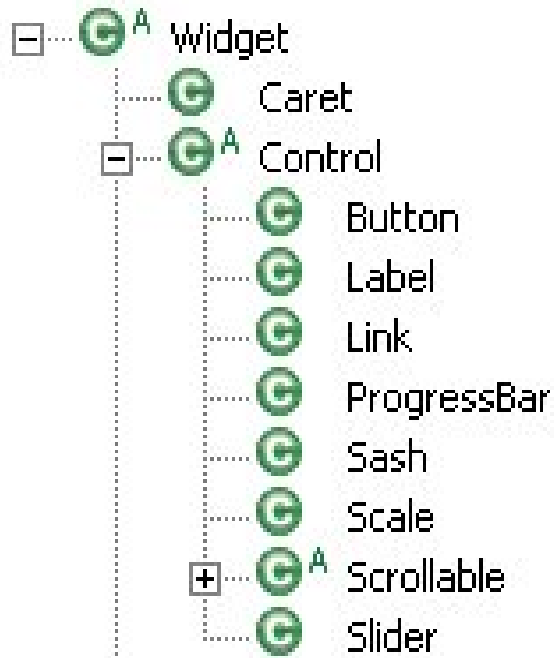
4 public class HelloWorld {
5     public static void main(String[] args){
6         Display display = new Display();
7         Shell shell = new Shell(display);
8         shell.setText("Hello World");
9         shell.setSize(200,100);
10        shell.open ();
11        while (!shell.isDisposed()) {
12            if (!display.readAndDispatch())
13                display.sleep ();
14        }
15        display.dispose();
16    }
17 }
```

Results in:



# SWT Widget Tree

## (Extract)



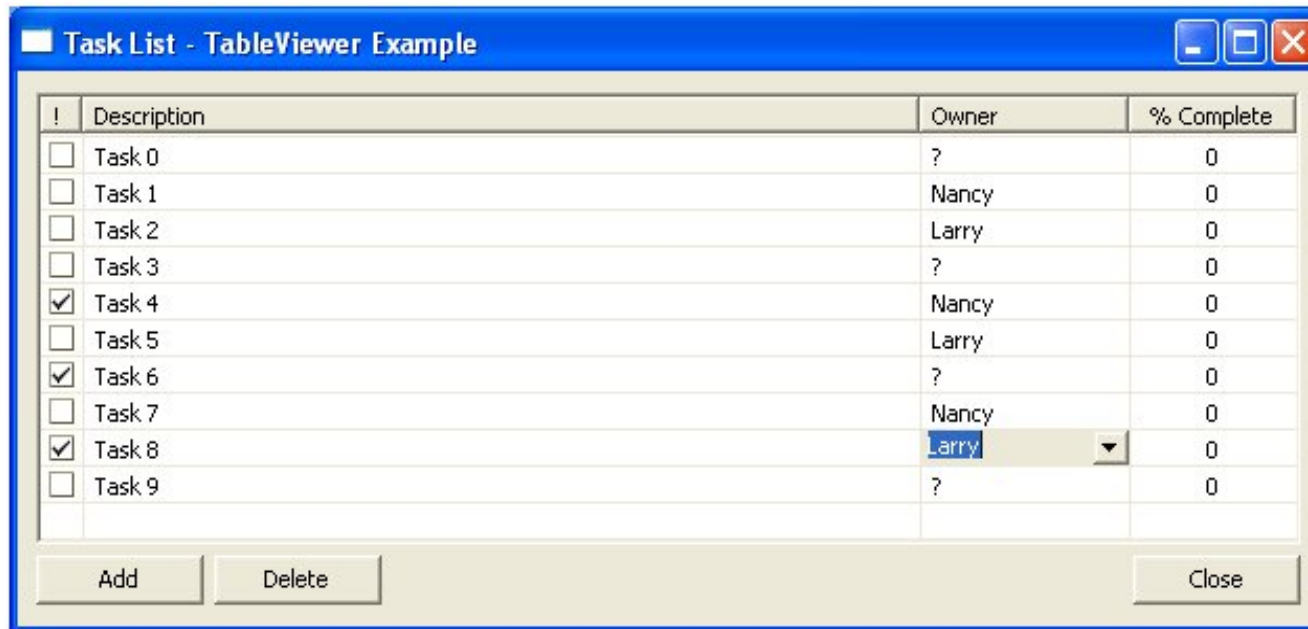
- Window Management with
- Layouts (GridLayout e.g.)

# About JFace



- JFace extends SWT with MVC approach
- JFace does not hide SWT
- Helps with standard tasks like dialogs, viewers, wizards etc

# JFace Example -> Table



- Seperated in:
- SWT | Table
  - Jface | TableViewer (=View)
  - Jface | ContentProvider (=Model)
  - Jface | SelectionListener (=Control)

# Introduction to Eclipse, SWT and JFace

# Questions?