Introduction to Eclipse, SWT and JFace
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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
Introduction to Eclipse, SWT & JFace

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
import org.eclipse.swt.*;
import org.eclipse.swt.graphics.*;
import org.eclipse.swt.widgets.*;

public class HelloWorld {
    public static void main(String[] args){
        Display display = new Display();
        Shell shell = new Shell(display);
        shell.setText("Hello World");
        shell.setSize(200,100);
        shell.open();
        while (!shell.isDisposed()) {
            if (!display.readAndDispatch())
                display.sleep();
        }
        display.dispose();
    }
}
SWT Widget Tree

- 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

Separated in:

- SWT | Table
- Jface | TableViewer (=View)
- Jface | ContentProvider (=Model)
- Jface | SelectionListener (=Control)
Questions?