

JavaFX

A software platform for
creating and delivering
desktop applications



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JavaFX Key features

Java APIs
FXML and Scene Builder
WebView
Swing interoperability
Built-in UI controls and CSS
Canvas API

Multitouch Support
Hardware-accelerated graphics pipeline
High-performance media engine
Self-contained application deployment model

Why use JavaFX?

People used JavaFX for develop Client Side Applications with rich features, such as Media, UI controls, Web, 2D and 3D, etc. JavaFX provides a rich set of graphics and media API's and interfaces which developers can combine graphics animation and UI control.

How does JavaFX works?

The main class for a JavaFX application extends the `javafx.application.Application` class. The `start()` method is the main entry point for all JavaFX applications.

A JavaFX application defines the user interface container by means of a stage and a scene. The JavaFX Stage class is the top-level JavaFX container. The JavaFX Scene class is the container for all content.

In JavaFX, the content of the scene is represented as a hierarchical scene graph of nodes. In this example, the root node is a `StackPane` object, which is a resizable layout node. This means that the root node's size tracks the scene's size and changes when the stage is resized by a user.

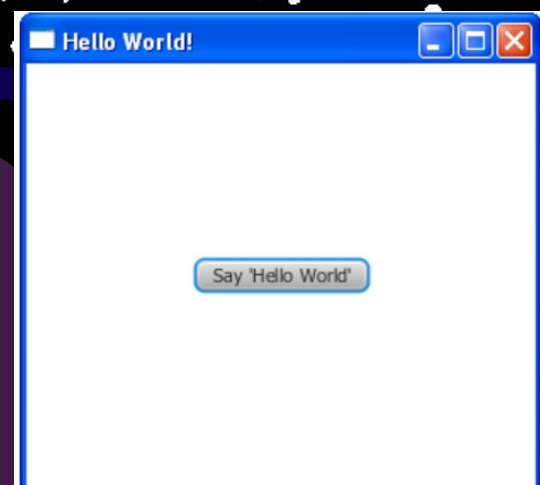
The root node contains one child node, a button control with text, plus an event handler to print a message when the button is pressed.

The `main()` method is not required for JavaFX applications when the JAR file for the application is created with the JavaFX Packager tool, which embeds the JavaFX Launcher in the JAR file.

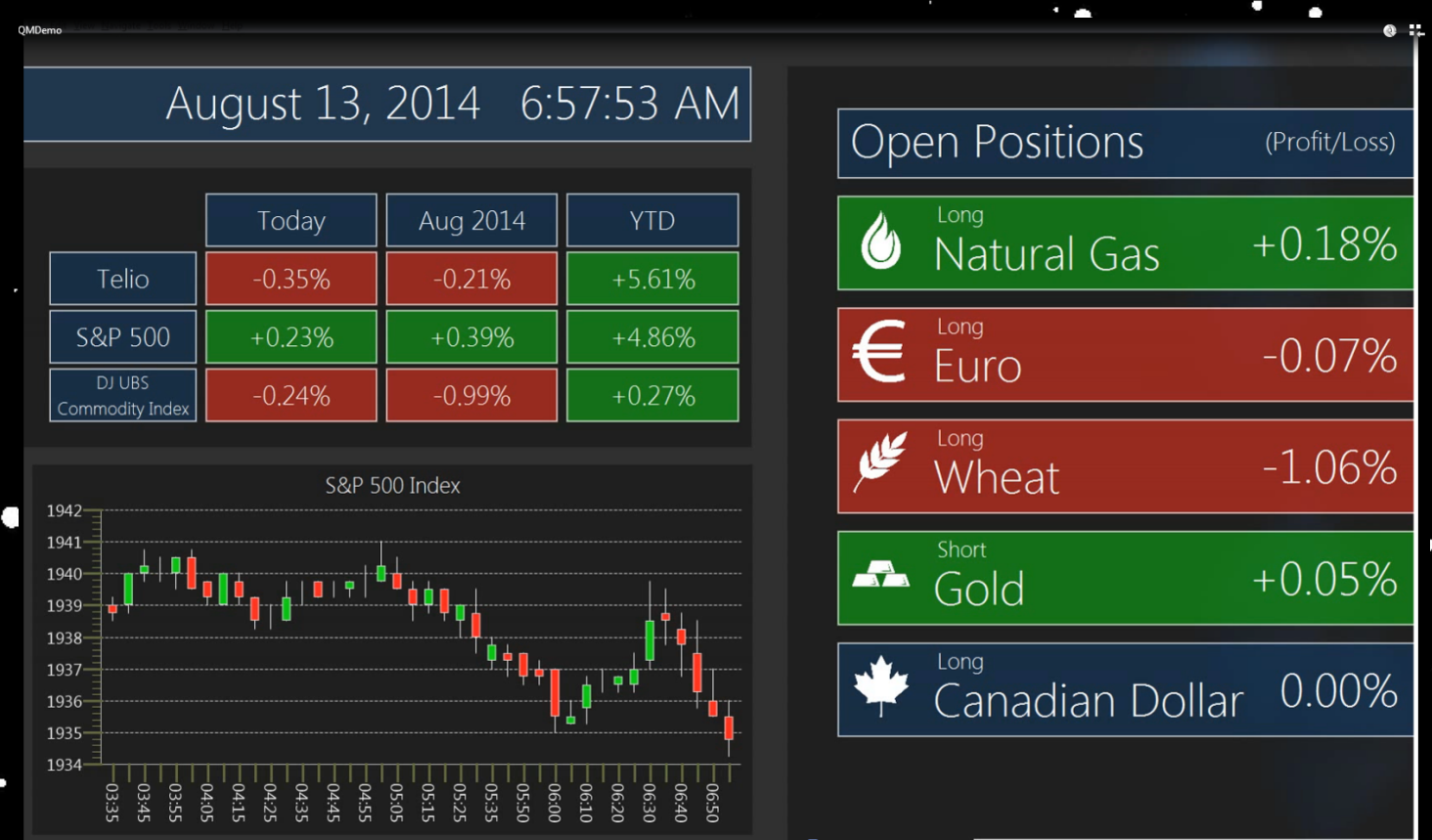
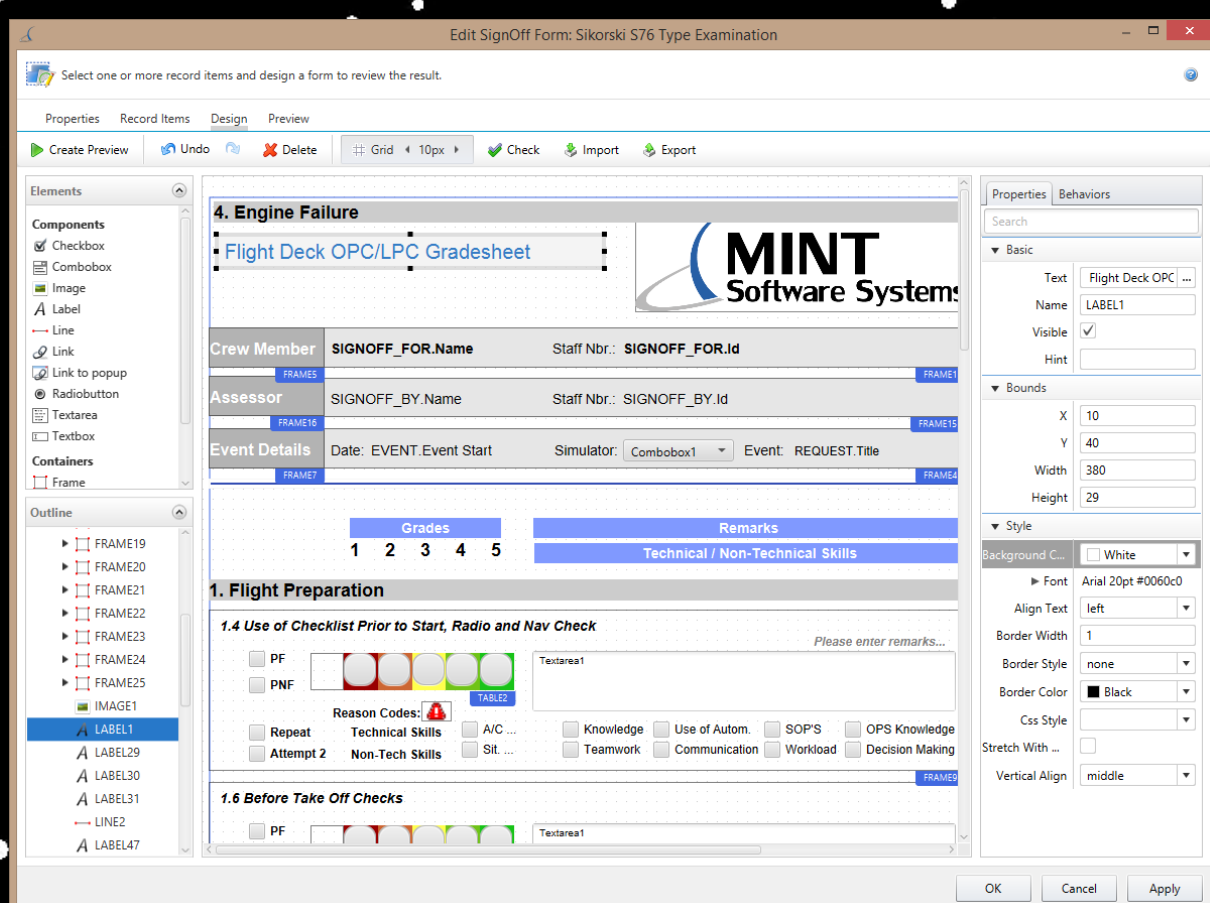
JavaFX Code Example

```
public class HelloWorld extends Application{
    public static void main(String[] args){
        launch(args);
    }
    @Override
    public void start(Stage primaryStage){
        primaryStage.setTitle("Hello World");
        Button btn = new Button();
        btn.setText("Say 'Hello World'");
        btn.setOnAction(new EventHandler<ActionEvent>(){
            @Override
            public void handle(ActionEvent event){
                System.out.println("Hello World");
            }
        });

        StackPane root = new StackPane();
        root.getChildren().add(btn);
        primaryStage.setScene(new Scene(root, 300, 250));
        primaryStage.show();
    }
}
```



JavaFX Real World App



About JavaFX

Initial release : Dec 8, 2008
Platform : Cross-Platform Software
Developed by : Sun Microsystems
Base Language : Java



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