## Uvod u JavaFX

AUDITORNE VJEŽBE

### Sadržaj

Dodatak e(fx)clipse

JavaFX Scene Builder

Korištenje CSS-a u JavaFX-u

Primjer korištenja HBox organizatora

Primjer korištenja VBox organizatora

Primjer korištenja FlowPane organizatora

Primjer korištenja BorderPane organizatora

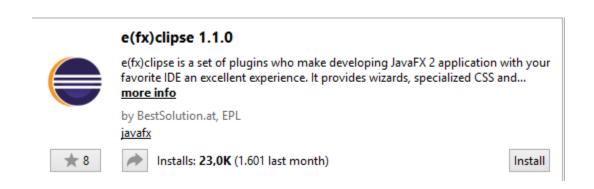
#### Dodatak e(fx)clipse

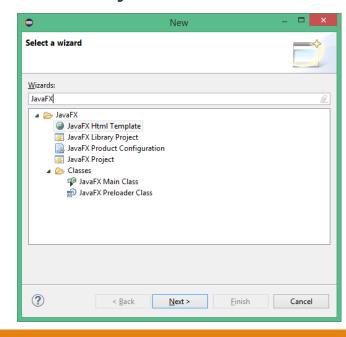
Eclipse sadrži poseban dodatak e(fx)clipse za razvoj JavaFX aplikacija

Trenutna verzija za Eclipse Luna je 1.1.0

Nakon instalacije dodatka Eclipse omogućava kreiranje resursa vezanih uz

JavaFX





#### JavaFX Scene Builder

- Vizualni alat za dizajniranje JavaFX grafičkih sučelja
- Omogućena integracija s najčešće korištenim razvojnim okruženjima za Javu
- Omogućava drag-and-drop elemenata na grafičko sučelje
- Svaka promjena na grafičkom sučelju popraćena je generiranjem programskog koda u FXML-u
- Omogućava preview dizajna aplikacije
- Instalira se kao odvojeni alat od Eclipsea

#### JavaFX Scene Builder - instalacija

#### JavaFX Scene Builder

A Visual Layout Tool for JavaFX Applications

JavaFX Scene Builder is a visual layout tool that lets users quickly design JavaFX application user interfaces, without coding. Users can drag and drop UI components to a work area, modify their properties, apply style sheets, and the FXML code for the layout that they are creating is automatically generated in the background. The result is an FXML file that can then be combined with a Java project by binding the UI to the application's logic.



#### Download

Scene Builder
 Binaries (1.x, 2.0)
 (Archives)



#### Documentation

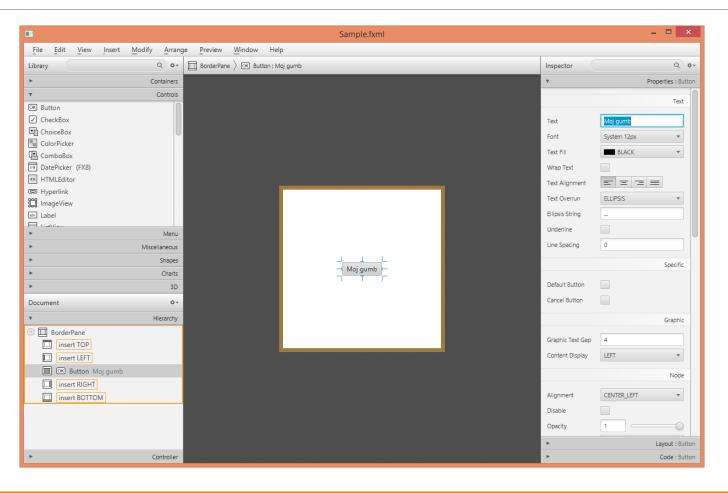
- Overview
- Release Notes
- Installation Guide
- Getting Started
- User Guide
- <u>Using Scene Builder</u> with Java IDEs



#### Videos

- A tour of JavaFX Scene Builder
- In-depth layout and styling with Scene Builder
- Getting started with Scene Builder
- Scene Builder with NetBeans 7.2

### JavaFX Scene Builder – izgled sučelja



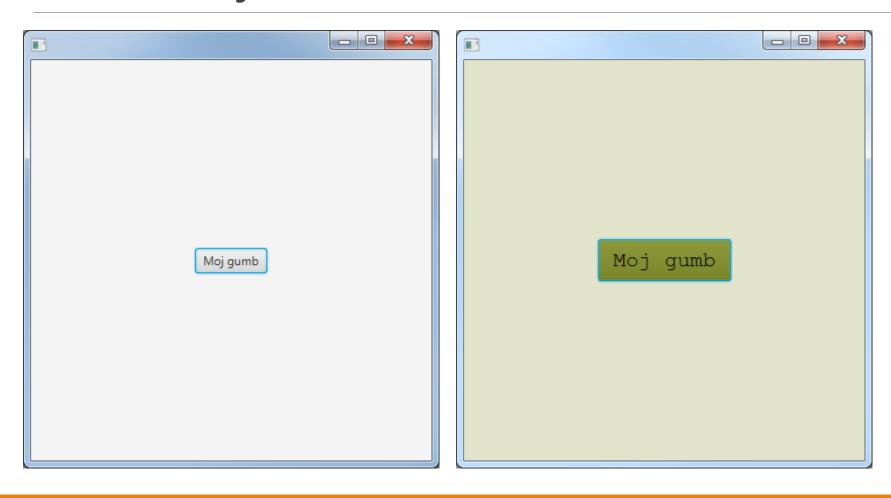
#### Korištenje CSS-a u JavaFX-u

- Osim u programskom kodu Java, CSS je moguće kreirati i iz datoteke
- Na primjer, ako je definiran sljedeći stil:

```
.root{
    -fx-font-size: 16pt;
    -fx-font-family: "Courier New";
    -fx-base: rgb(132, 145, 47);
    -fx-background: rgb(225, 228, 203);
}
```

• Ako postoji objekt pod nazivom "root" u programskom jeziku Java, na njega će se primijeniti navedeni stilovi

## Korištenje CSS-a u JavaFX-u



#### Primjer korištenja HBox organizatora

```
public class HBoxExample extends Application {
   @Override
    public void start(Stage primaryStage) {
        Group root = new Group();
        Scene scene = new Scene(root, 300, 250);
        HBox hbox = new HBox(5);
        hbox.setPadding(new Insets(1));
        Rectangle r1 = new Rectangle(10, 10);
        Rectangle r2 = new Rectangle(20, 20);
        Rectangle r3 = new Rectangle(5, 20);
        Rectangle r4 = new Rectangle(20, 5);
        HBox.setMargin(r1, new Insets(2,2,2,2));
```

#### Primjer korištenja HBox organizatora

```
hbox.getChildren().addAll(r1, r2, r3, r4);
root.getChildren().add(hbox);
  primaryStage.setOnShown((WindowEvent we) -> {
    System.out.println("hbox width " + hbox.getBoundsInParent().getWidth());
    System.out.println("hbox height " + hbox.getBoundsInParent().getHeight());
  });
  primaryStage.setTitle("HBox Example");
  primaryStage.setScene(scene);
  primaryStage.show();
  public static void main(String[] args) {
      Launch(args);
```

### Primjer korištenja VBox organizatora

```
public class VBoxExample extends Application {
   @Override
    public void start(Stage primaryStage) {
       Group root = new Group();
        Scene scene = new Scene(root, 300, 250);
       VBox vbox = new VBox(5);
       vbox.setPadding(new Insets(1));
       Rectangle r1 = new Rectangle(10, 10);
        Rectangle r2 = new Rectangle(20, 20);
        Rectangle r3 = new Rectangle(5, 20);
        Rectangle r4 = new Rectangle(20, 5);
       VBox.setMargin(r1, new Insets(2,2,2,2));
```

## Primjer korištenja VBox organizatora

```
vbox.getChildren().addAll(r1, r2, r3, r4);
root.getChildren().add(vbox);
primaryStage.setOnShown((WindowEvent we) -> {
   System.out.println("vbox width " + vbox.getBoundsInParent().getWidth());
   System.out.println("vbox height " + vbox.getBoundsInParent().getHeight());
  });
  primaryStage.setTitle("VBox Example");
  primaryStage.setScene(scene);
  primaryStage.show();
 public static void main(String[] args) {
     Launch(args);
```

## Primjer korištenja FlowPane organizatora

```
public class FlowPaneExample extends Application {
   @Override
    public void start(Stage primaryStage) {
        Group root = new Group();
        Scene scene = new Scene(root);
        FlowPane flowPane = new FlowPane();
        Button b1 = new Button("Prvi");
        Button b2 = new Button("Drugi");
        Button b3 = new Button("Treći");
        Button b4 = new Button("Cetvrti");
        Button b5 = new Button("Peti");
        Button b6 = new Button("Sesti");
        Button b7 = new Button("Sedmi");
        Button b8 = new Button("Osmi");
```

### Primjer korištenja FlowPane organizatora

```
Button b9 = new Button("Deveti");
  Button b10 = new Button("Deseti");
  flowPane.setAlignment(Pos.TOP_RIGHT);
 flowPane.getChildren().addAll(b1, b2, b3, b4, b5, b6, b7, b8, b9, b10);
  root.getChildren().add(flowPane);
  primaryStage.setTitle("VBox Example");
  primaryStage.setScene(scene);
  primaryStage.show();
public static void main(String[] args) {
  launch(args);
```

```
public class BorderPaneExample extends Application {
   @Override
    public void start(Stage primaryStage) {
        Group root = new Group();
        Scene scene = new Scene(root);
        BorderPane borderPane = new BorderPane();
        Button b1 = new Button("GORNJI");
        Button b2 = new Button("LIJEVI");
        Button b3 = new Button("SREDIŠNJI");
        Button b4 = new Button("DESNI");
        Button b5 = new Button("DONJI");
        BorderPane.setAlignment(b1, Pos.TOP CENTER);
```

```
borderPane.setTop(b1);
    borderPane.setLeft(b2);
    borderPane.setCenter(b3);
   borderPane.setRight(b4);
    BorderPane.setAlignment(b5, Pos.BOTTOM_CENTER);
    borderPane.setBottom(b5);
   root.getChildren().add(borderPane);
   primaryStage.setTitle("BorderPane Example");
   primaryStage.setScene(scene);
   primaryStage.show();
public static void main(String[] args) {
    Launch(args);
```

```
public class GridPaneForm extends Application {
    public static void main(String[] args) {
        Application. launch(args);
   @Override
    public void start(Stage primaryStage) {
        primaryStage.setTitle("GridPaneForm ");
        BorderPane root = new BorderPane();
        Scene scene = new Scene(root, 380, 150, Color.WHITE);
        GridPane gridpane = new GridPane();
        gridpane.setPadding(new Insets(5));
        gridpane.setHgap(5);
        gridpane.setVgap(5);
```

```
ColumnConstraints column1 = new ColumnConstraints(100);
ColumnConstraints column2 = new ColumnConstraints(50, 150, 300);
column2.setHgrow(Priority.ALWAYS);
gridpane.getColumnConstraints().addAll(column1, column2);
Label fNameLbl = new Label("First Name");
TextField fNameFld = new TextField();
Label 1NameLbl = new Label("Last Name");
TextField lNameFld = new TextField();
Button saveButt = new Button("Save");
GridPane.setHalignment(fNameLbl, HPos.RIGHT);
gridpane.add(fNameLbl, 0, 0);
```

```
GridPane.setHalignment(lNameLbl, HPos.RIGHT);
gridpane.add(lNameLbl, 0, 1);

GridPane.setHalignment(fNameFld, HPos.LEFT);
gridpane.add(fNameFld, 1, 0);

GridPane.setHalignment(lNameFld, HPos.LEFT);
gridpane.add(lNameFld, 1, 1);

GridPane.setHalignment(saveButt, HPos.RIGHT);
gridpane.add(saveButt, 1, 2);
```

```
FlowPane topBanner = new FlowPane();
topBanner.setAlignment(Pos.TOP RIGHT);
topBanner.setPrefHeight(40);
String backgroundStyle =
        "-fx-background-color: lightblue;"
        + "-fx-background-radius: 30%;"
        + "-fx-background-inset: 5px;";
topBanner.setStyle(backgroundStyle);
SVGPath svgIcon = new SVGPath();
svgIcon.setStroke(Color.LIGHTGRAY);
svgIcon.setFill(Color.WHITE);
Text contactText = new Text("Contacts");
contactText.setFill(Color.WHITE);
```

```
Font serif = Font.font("Dialog", 30);
  contactText.setFont(serif);
  topBanner.getChildren().addAll(svgIcon, contactText);

root.setTop(topBanner);
  root.setCenter(gridpane);

primaryStage.setScene(scene);

primaryStage.show();
}
```

## Pitanja?