

# Laslo Kraus: Podsetnik za AWT

## package java.awt

```
abst class Component ext Object imp MenuContainer
Container getParent()
boolean isDisplayable()
void setEnabled(boolean b)
void setVisible(boolean b)
Color getForeground()
Color getBackground()
Font getFont()
void setLocation(int x, int y)
void setBounds(int x, int y, int width, int height)
int getX()      int getY()      int getWidth()     int getHeight()
void doLayout() void validate() void invalidate()
void paint(Graphics g)
void repaint()
void add(PopupMenu popup)
Component getComponentAt(int x, int y) Point getMousePosition()
boolean requestFocusInWindow() boolean isFocusOwner()
void transferFocus() void transferFocusBackward()
void add/removeComponentListener(ComponentListener l)
void add/removeFocusListener(FocusListener l)
void add/removeKeyListener(KeyListener l)
void add/removeMouseListener(MouseListener l)
void add/removeMouseMotionListener(MouseMotionListener l)
```

## class Label ext Component

```
static final int LEFT, CENTER, RIGHT
Label()      Label(String text)  Label(String text, int alignment)
int getAlignment() void setAlignment(int alignment)
String getText()   void setText(String text)
```

## class Button ext Component

```
Button()      Button(String label)
String getLabel() void setLabel(String label)
void add/removeActionListener(ActionListener l)
```

## class Canvas ext Component

```
class TextComponent ext Component
void setText(String t) String getText() String getSelectedText()
boolean isEditable() void setEditable(boolean b)
int getSelectionStart() void setSelectionStart(int selectionStart)
int getSelectionEnd() void setSelectionEnd(int selectionEnd)
void select(int selectionStart, int selectionEnd) void selectAll()
void setCaretPosition(int position) int getCaretPosition()
void add/removeTextListener(TextListener l)
```

## class TextField ext TextComponent

```
TextField()      TextField(String text)
TextField(int columns) TextField(String text, int columns)
int getColumns() void setColumns(int columns)
void add/removeActionListener(ActionListener l)
```

## class TextArea ext TextComponent

```
TextArea()      TextArea(String text) TextArea(int rows, int columns)
TextArea(String text, int rows, int columns) int getRows()
void insert(String str, int pos) void append(String str)
void replaceRange(String str, int start, int end) int getColumns()
void setColumns(int columns) void setRows(int rows)
```

## interface ItemSelectable

```
Object[] getSelectedObjects()
void add/removeItemListener(ItemListener l)
```

## class Checkbox ext Component imp ItemSelectable

```
Checkbox()      Checkbox(String label)
Checkbox(String label, boolean state)
Checkbox(String label, boolean state, CheckboxGroup group)
Checkbox(String label, CheckboxGroup group, boolean state)
String getLabel() void setLabel(String label)
boolean getState() void setState(boolean state)
CheckboxGroup getCheckboxGroup()
void setCheckboxGroup(CheckboxGroup g)
```

## class CheckboxGroup ext Object

```
CheckboxGroup() Checkbox getSelectedCheckbox()
void setSelectedCheckbox(Checkbox box)
```

## class List ext Component imp ItemSelectable

```
List()      List(int rows) List(int rows, boolean multipleMode)
int getItemCount() void removeAll()
String getItem(int index) String[] getItems()
void add(String item) void add(String item, int index)
void replaceItem(String newValue, int index)
void remove(String item) void remove(int position)
int getSelectedIndex() int[] getSelectedIndexes()
String getSelectedItem() String[] getSelectedItems()
void select(int index) void deselect(int index)
boolean isIndexSelected(int index) int getRows()
boolean isMultipleMode() void setMultipleMode(boolean b)
void add/removeActionListener(ActionListener l)
```

## class Choice ext Component imp ItemSelectable

```
Choice() void removeAll()
int getItemCount() String getItem(int index)
void add(String item) void insert(String item, int index)
void remove(String item) void remove(int position)
String getSelectedItem() int getSelectedIndex()
void select(int pos) void select(String str)
```

## class Container ext Component

```
Component[] getComponents() Component getComponent(int n)
Component add(Component comp) int getComponentCount()
Component add(Component comp, int index) void removeAll()
void add(Component comp, Object constraints)
void add(Component comp, Object constraints, int index)
void remove(int index) void remove(Component comp)
Component findComponentAt(int x, int y)
Point getMousePosition(boolean allowChildren)
LayoutManager getLayout() void setLayout(LayoutManager mgr)
void add/removeContainerListener(ContainerListener l)
```

## class Panel ext Container

```
Panel() Panel(LayoutManager layout)
```

## class Window ext Container

```
void pack() void dispose() void toFront() void toBack()
final boolean isAlwaysOnTop() boolean isActive()
void setLocationRelativeTo(Component c) boolean isFocused()
void add/removeWindowListener(WindowListener l)
```

## class Frame ext Window

```
static final int NORMAL, ICONIFIED, MAXIMIZED_HORIZ,
MAXIMIZED_VERT, MAXIMIZED_BOTH
Frame()      Frame(String title) String getTitle()
void setTitle(String title) MenuBar getMenuBar()
void setMenuBar(MenuBar mb) void remove(MenuComponent m)
boolean isResizable() void setResizable(boolean resizable)
void setState(int state) void setExtendedState(int state)
int getState() int getExtendedState()
```

## class Dialog ext Window

```
Dialog(Frame owner) Dialog(Frame owner, String title)
Dialog(Frame owner, boolean modal) void setModal(boolean b)
Dialog(Frame owner, String title, boolean modal) boolean isModal()
String getTitle() void setTitle(String title)
boolean isResizable() void setResizable(boolean resizable)
```

## class Applet ext Panel

```
Applet() boolean isActive() String getParameter(String name)
void init() void start() void stop() void destroy()
```

## class MenuShortcut ext Object

```
MenuShortcut(int key) boolean usesShiftModifier()
MenuShortcut(int key, boolean useShiftModifier) int getKey()
```

## interface MenuContainer

```
void remove(MenuComponent comp)
```

## abst class MenuComponent ext Object

```
MenuComponent() MenuContainer getParent() String getName()
void setName(String name) Font getFont() void setFont(Font f)
```

## class MenuBar ext MenuComponent imp MenuContainer

```
MenuBar() Menu add(Menu m)
void remove(int index) void remove(MenuComponent m)
int getMenuCount() Menu getMenu(int i)
```

```

class MenuItem ext MenuComponent
MenuItem()           MenuItem(String label, MenuShortcut s)
MenuItem(String label)    void deleteShortcut()
String getLabel()       void setLabel(String label)
boolean isEnabled()     void setEnabled(boolean b)
MenuShortcut getShortcut()   void setShortcut(MenuShortcut s)
void addActionListener(ActionListener l)

class CheckboxMenuItem ext MenuItem imp ItemSelectable
CheckboxMenuItem()      CheckboxMenuItem(String label)
CheckboxMenuItem(String label, boolean state)  void setState(boolean b)

class Menu ext MenuItem imp MenuContainer
Menu()                 Menu(String label)
int getItemCount()      MenuItem getItem(int index)
MenuItem add(MenuItem mi) void removeAll()
void insert(MenuItem mi, int index)
void add(String label)  void insert(String label, int index)
void addSeparator()    void insertSeparator(int index)
void remove(int index) void remove(MenuComponent item)

class PopupMenu ext Menu
PopupMenu()            PopupMenu(String label)
void show(Component origin, int x, int y)

class FlowLayout ext Object imp LayoutManager
static final int LEFT, CENTER, RIGHT, LEADING, TRAILING
FlowLayout()           FlowLayout(int align, int hgap, int vgap)
FlowLayout(int align)  void setAlignment(int align)
void setHgap(int hgap) void setVgap(int vgap)
int getAlignment()    int getHgap()    int getVgap()

class GridLayout ext Object imp LayoutManager
GridLayout()           GridLayout(int rows, int cols)
GridLayout(int rows, int cols, int hgap, int vgap)
int getRows()          int getColumns() int getHgap()  int getVgap()
void setRows(int rows) void setColumns(int cols)
void setHgap(int hgap) void setVgap(int vgap)

class BorderLayout ext Object imp LayoutManager
static final String NORTH, SOUTH, EAST, WEST, CENTER
BorderLayout()          BorderLayout(int hgap, int vgap)  int getHgap()
int getVgap()          void setHgap(int hgap)    void setVgap(int vgap)

abst class Graphics ext Object
void translate(int x, int y)
Rectangle getClipBounds() void setPaintMode()
void setClip(int x, int y, int w, int h) void setXORMode(Color c1)
void drawString(String str, int x, int y) Color getColor()
void drawLine(int x1, int y1, int x2, int y2) void setColor(Color c)
void draw/fillRect(int x, int y, int w, int h) Font getFont()
void clearRect(int x, int y, int w, int h) void setFont(Font font)
void draw/fillRoundRect(int x, int y, int w, int h, int arcW, int arcH)
void draw/fillOval(int x, int y, int width, int height)
void draw/fillArc(int x, int y, int w, int h, int startAngle, int arcAngle)
void draw/fillPolygon(int[] xPoints, int[] yPoints, int nPoints)
void drawPolyline(int[] xPoints, int[] yPoints, int nPoints)

class Color ext Object
static final Color WHITE, LIGHT_GRAY, GRAY, DARK_GRAY, BLACK,
RED, PINK, ORANGE, YELLOW, GREEN, MAGENTA, CYAN,
BLUE
Color(int r, int g, int b)  Color(int rgb)  Color(float r, float g, float b)
int getRed()    int getGreen() int getBlue()  int getRGB()
Color brighter() Color darker()

class Font ext Object
static final int PLAIN, BOLD, ITALIC
Font(String name, int style, int size)
String getName()    int getStyle()    int getSize()
boolean isPlain()  boolean isBold()  boolean isItalic()
boolean canDisplay(char c) boolean canDisplay(int codePoint)

class Point ext Point2D (ext Object)
int x, y           Point()           Point(Point p) Point(int x, int y)
double getX()      double getY()    Point getLocation()
void setLocation(Point p) void setLocation(int x, int y)
void setLocation(double x, double y) void move(int x, int y)
void translate(int dx, int dy)

```

```

class Rectangle ext Rectangle2D (ext Object)
int x, y, width, height
Rectangle()           Rectangle()
Rectangle(int x, int y, int w, int h)  boolean contains(Point p)
boolean contains(Rectangle r)

package java.awt.event
interface ActionListener ext java.util.EventListener
void actionPerformed(ActionEvent e)

interface ComponentListener ext EventListener
void componentResized/Moved/Shown/Hidden(ComponentEvent e)

interface ContainerListener ext EventListener
void componentAdded/Removed(ContainerEvent e)

interface FocusListener ext EventListener
void focusGained/Lost(FocusEvent e)

interface ItemListener ext EventListener
void itemStateChanged(ItemEvent e)

interface KeyListener ext EventListener
void keyTyped/Pressed/Released (KeyEvent e)

interface MouseListener ext EventListener
void mouseClicked/Pressed/Released/Entered/Exited
(MouseEvent e)

interface MouseMotionListener ext EventListener
void mouseDragged/Moved(MouseEvent e)

interface TextListener ext EventListener
void textValueChanged(TextEvent e)

interface WindowListener ext EventListener
void windowOpened/Closing/Closed/Iconified/Deiconified/
Activated/Deactivated (WindowEvent e)

class java.util.EventObject ext Object
Object getSource()

abst class AWTEvent ext EventObject

class ActionEvent ext AWTEvent
static final int SHIFT_MASK, CTRL_MASK, META_MASK, ALT_MASK
long getWhen()          int getModifiers()

class ComponentEvent ext AWTEvent
Component getComponent()

class ContainerEvent ext ComponentEvent
Container getContainer() Component getChild()

class FocusEvent ext ComponentEvent
boolean isTemporary()  Component getOppositeComponent()

abst class InputEvent ext ComponentEvent
boolean isShiftDown()  boolean isControlDown()
boolean isMetaDown()   boolean isAltDown()
boolean isAltGraphDown()

class ItemEvent ext AWTEvent
static final int SELECTED, DESELECTED
Object getItem()        int getStateChange()

class KeyEvent ext InputEvent
static final int VK_ENTER, VK_BACK_SPACE, VK_TAB, VK_CANCEL,
VK_CLEAR, VK_SHIFT, VK_CONTROL, VK_ALT, VK_PAUSE,
VK_CAPS_LOCK, VK_ESCAPE, VK_SPACE, VK_PAGE_UP,
VK_PAGE_DOWN, VK_END, VK_HOME, VK_LEFT, VK_UP,
VK_RIGHT, VK_DOWN, ...
int getKeyCode()         char getKeyChar()

class MouseEvent ext InputEvent
static final int NOBUTTON, BUTTON1, BUTTON2, BUTTON3
int getX()    int getY()    int getClickCount() int getButton()

class TextEvent ext AWTEvent

class WindowEvent ext ComponentEvent
Window getWindow()      Window getOppositeWindow()
int getOldState()        int getNewState()

```