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## Class Main

java.lang.Object  
Main

---

```
public class Main
extends java.lang.Object
```

Chama a tela de login.

### Constructor Summary

#### Constructors

Constructor and Description
-----------------------------

<a href="#">Main()</a>
------------------------

### Method Summary

All Methods	Static Methods	Concrete Methods
-------------	----------------	------------------

Modifier and Type	Method and Description
-------------------	------------------------

static void	<a href="#">main</a> (java.lang.String[] args)
-------------	--

#### Methods inherited from class java.lang.Object

[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#), [wait](#)

### Constructor Detail

Main
------

<pre>public Main()</pre>
--------------------------

### Method Detail

**main**

```
public static void main(java.lang.String[] args)
```

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ui

## Class Login

```
java.lang.Object
  java.awt.Component
    java.awt.Container
      java.awt.Window
        java.awt.Frame
          javax.swing.JFrame
            ui.Login
```

### All Implemented Interfaces:

java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable,  
javax.accessibility.Accessible, javax.swing.RootPaneContainer,  
javax.swing.WindowConstants

```
public class Login
  extends javax.swing.JFrame
```

Tela de login. Caso o usuário acerte a senha, os dados são lidos e o usuário entra no sistema. Caso erre, fecha o programa.

### See Also:

[Serialized Form](#)

### *Nested Class Summary*

#### **Nested classes/interfaces inherited from class javax.swing.JFrame**

javax.swing.JFrame.AccessibleJFrame

#### **Nested classes/interfaces inherited from class java.awt.Frame**

java.awt.Frame.AccessibleAWTFrame

#### **Nested classes/interfaces inherited from class java.awt.Window**

java.awt.Window.AccessibleAWTWindow, java.awt.Window.Type

#### **Nested classes/interfaces inherited from class java.awt.Container**

java.awt.Container.AccessibleAWTContainer

#### **Nested classes/interfaces inherited from class java.awt.Component**

```
java.awt.Component.AccessibleAWTComponent,  
java.awt.Component.BaselineResizeBehavior,  
java.awt.Component.BltBufferStrategy,  
java.awt.Component.FlipBufferStrategy
```

## Field Summary

### Fields

Modifier and Type	Field and Description
-------------------	-----------------------

private java.lang.String	<code>passwd</code>
--------------------------	---------------------

### Fields inherited from class javax.swing.JFrame

`accessibleContext`, `EXIT_ON_CLOSE`, `rootPane`, `rootPaneCheckingEnabled`

### Fields inherited from class java.awt.Frame

`CROSSHAIR_CURSOR`, `DEFAULT_CURSOR`, `E_RESIZE_CURSOR`, `HAND_CURSOR`, `ICONIFIED`, `MAXIMIZED_BOTH`, `MAXIMIZED_HORIZ`, `MAXIMIZED_VERT`, `MOVE_CURSOR`, `N_RESIZE_CURSOR`, `NE_RESIZE_CURSOR`, `NORMAL`, `NW_RESIZE_CURSOR`, `S_RESIZE_CURSOR`, `SE_RESIZE_CURSOR`, `SW_RESIZE_CURSOR`, `TEXT_CURSOR`, `W_RESIZE_CURSOR`, `WAIT_CURSOR`

### Fields inherited from class java.awt.Component

`BOTTOM_ALIGNMENT`, `CENTER_ALIGNMENT`, `LEFT_ALIGNMENT`, `RIGHT_ALIGNMENT`, `TOP_ALIGNMENT`

### Fields inherited from interface javax.swing.WindowConstants

`DISPOSE_ON_CLOSE`, `DO_NOTHING_ON_CLOSE`, `HIDE_ON_CLOSE`

### Fields inherited from interface java.awt.image.ImageObserver

`ABORT`, `ALLBITS`, `ERROR`, `FRAMEBITS`, `HEIGHT`, `PROPERTIES`, `SOMEBITS`, `WIDTH`

## Constructor Summary

### Constructors

Constructor and Description
-----------------------------

<code>Login()</code>
----------------------

Construtor da classe.
-----------------------

## Method Summary

### All Methods    Static Methods    Concrete Methods

#### Modifier and Type

#### Method and Description

static java.lang.String **criptografar**(java.lang.String senha)  
Criptografa a senha e retorna ela encriptografada.

### Methods inherited from class javax.swing.JFrame

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

### Methods inherited from class java.awt.Frame

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify, setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

### Methods inherited from class java.awt.Window

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidatRoot, pack, paint, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

## Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

## Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener,

```
removeHierarchyListener, removeInputMethodListener, removeKeyListener,  
removeMouseListener, removeMouseMotionListener, removeMouseWheelListener,  
removePropertyChangeListener, removePropertyChangeListener, repaint,  
repaint, repaint, requestFocus, requestFocus, requestFocusInWindow,  
requestFocusInWindow, resize, resize, revalidate,  
setComponentOrientation, setDropTarget, setEnabled, setFocusable,  
setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale,  
setMaximumSize, setName, setPreferredSize, show, size, toString,  
transferFocus, transferFocusBackward, transferFocusUpCycle
```

### Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait,  
wait, wait
```

### Methods inherited from interface java.awt.MenuContainer

```
getFont, postEvent
```

## Field Detail

### passwd

```
private java.lang.String passwd
```

## Constructor Detail

### Login

```
public Login()
```

Construtor da classe. Chama função que lê o arquivo da senha, apresenta a tela de login e valida a senha inserida, direcionando o usuário à tela inicial caso a senha esteja correta ou fechando o programa, caso não esteja.

## Method Detail

### criptografar

```
public static java.lang.String criptografar(java.lang.String senha)
```

Criptografa a senha e retorna ela encriptografada.

#### Parameters:

senha -

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ui

## Class TelaInicial

```
java.lang.Object
  java.awt.Component
    java.awt.Container
      java.awt.Window
        java.awt.Frame
          javax.swing.JFrame
            ui.TelaInicial
```

### All Implemented Interfaces:

[java.awt.image.ImageObserver](#), [java.awt.MenuContainer](#), [java.io.Serializable](#),  
[javax.accessibility.Accessible](#), [javax.swing.RootPaneContainer](#),  
[javax.swing.WindowConstants](#)

```
public class TelaInicial
  extends javax.swing.JFrame
```

Tela inicial da aplicação. Apresenta opções e redireciona para a tela da escolhida. Em particular, a opção de sair realiza o salvamento do Tracker em um arquivo serializável.

### See Also:

[Serialized Form](#)

### *Nested Class Summary*

#### **Nested classes/interfaces inherited from class javax.swing.JFrame**

[javax.swing.JFrame.AccessibleJFrame](#)

#### **Nested classes/interfaces inherited from class java.awt.Frame**

[java.awt.Frame.AccessibleAWTFrame](#)

#### **Nested classes/interfaces inherited from class java.awt.Window**

[java.awt.Window.AccessibleAWTWindow](#), [java.awt.Window.Type](#)

#### **Nested classes/interfaces inherited from class java.awt.Container**

[java.awt.Container.AccessibleAWTContainer](#)

#### **Nested classes/interfaces inherited from class java.awt.Component**

```
java.awt.Component.AccessibleAWTComponent,  
java.awt.Component.BaselineResizeBehavior,  
java.awt.Component.BltBufferStrategy,  
java.awt.Component.FlipBufferStrategy
```

## Field Summary

### Fields inherited from class javax.swing.JFrame

accessibleContext, EXIT\_ON\_CLOSE, rootPane, rootPaneCheckingEnabled

### Fields inherited from class java.awt.Frame

CROSSHAIR\_CURSOR, DEFAULT\_CURSOR, E\_RESIZE\_CURSOR, HAND\_CURSOR,  
ICONIFIED, MAXIMIZED\_BOTH, MAXIMIZED\_HORIZ, MAXIMIZED\_VERT, MOVE\_CURSOR,  
N\_RESIZE\_CURSOR, NE\_RESIZE\_CURSOR, NORMAL, NW\_RESIZE\_CURSOR,  
S\_RESIZE\_CURSOR, SE\_RESIZE\_CURSOR, SW\_RESIZE\_CURSOR, TEXT\_CURSOR,  
W\_RESIZE\_CURSOR, WAIT\_CURSOR

### Fields inherited from class java.awt.Component

BOTTOM\_ALIGNMENT, CENTER\_ALIGNMENT, LEFT\_ALIGNMENT, RIGHT\_ALIGNMENT,  
TOP\_ALIGNMENT

### Fields inherited from interface javax.swing.WindowConstants

DISPOSE\_ON\_CLOSE, DO\_NOTHING\_ON\_CLOSE, HIDE\_ON\_CLOSE

### Fields inherited from interface java.awt.image.ImageObserver

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS, WIDTH

## Constructor Summary

### Constructors

#### Constructor and Description

**TelaInicial**(**Tracker** tracker)

Construtor da classe.

## Method Summary

### Methods inherited from class javax.swing.JFrame

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane,

getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultCloseOperation, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

### Methods inherited from class java.awt.Frame

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify, setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

### Methods inherited from class java.awt.Window

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, paint, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

### Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize,

paintComponents, preferredSize, print, printComponents,  
processContainerEvent, remove, removeAll, removeContainerListener,  
setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy,  
setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle,  
validate, validateTree

### Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener,  
addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener,  
addKeyListener, addMouseListener, addMouseMotionListener,  
addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents,  
contains, contains, createImage, createImage, createVolatileImage,  
createVolatileImage, disable, disableEvents, dispatchEvent, enable,  
enable, enableEvents, enableInputMethods, firePropertyChange,  
firePropertyChange, firePropertyChange, firePropertyChange,  
firePropertyChange, firePropertyChange, firePropertyChange,  
firePropertyChange, firePropertyChange, getBaseline,  
getBaselineResizeBehavior, getBounds, getBounds, getColorModel,  
getComponentListeners, getComponentOrientation, getCursor, getDropTarget,  
getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics,  
getForeground, getGraphicsConfiguration, getHeight,  
getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint,  
getInputMethodListeners, getInputMethodRequests, getKeyListeners,  
getLocation, getLocation, getLocationOnScreen, getMouseListeners,  
getMouseMotionListeners, getMousePosition, getMouseWheelListeners,  
getName, getParent, getPeer, getPropertyChangeListeners,  
getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth,  
getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside,  
isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled,  
isFocusable, isFocusOwner, isFocusTraversable, isFontSet,  
isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet,  
isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list,  
location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit,  
mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage,  
prepareImage, printAll, processComponentEvent, processFocusEvent,  
processHierarchyBoundsEvent, processHierarchyEvent,  
processInputMethodEvent, processKeyEvent, processMouseEvent,  
processMouseMotionEvent, processMouseWheelEvent, removeComponentListener,  
removeFocusListener, removeHierarchyBoundsListener,  
removeHierarchyListener, removeInputMethodListener, removeKeyListener,  
removeMouseListener, removeMouseMotionListener, removeMouseWheelListener,  
removePropertyChangeListener, removePropertyChangeListener, repaint,  
repaint, repaint, requestFocus, requestFocus, requestFocusInWindow,  
requestFocusInWindow, resize, resize, revalidate,  
setComponentOrientation, setDropTarget, setEnabled, setFocusable,  
setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale,  
setMaximumSize, setName, setPreferredSize, show, size, toString,  
transferFocus, transferFocusBackward, transferFocusUpCycle

**Methods inherited from class `java.lang.Object`**

`clone`, `equals`, `finalize`, `getClass`, `hashCode`, `notify`, `notifyAll`, `wait`, `wait`, `wait`

**Methods inherited from interface `java.awt.MenuContainer`**

`getFont`, `postEvent`

***Constructor Detail*****TelaInicial**

```
public TelaInicial(Tracker tracker)
```

Construtor da classe. Dimensiona o frame, adiciona fundo e os botões (e seus eventos). Recebe o objeto de `Tracker` lido do arquivo.

**Parameters:**

`tracker` - objeto lido do arquivo.

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ui

## Class ListarInformacoes

```
java.lang.Object
  java.awt.Component
    java.awt.Container
      java.awt.Window
        java.awt.Frame
          javax.swing.JFrame
            ui.ListarInformacoes
```

### All Implemented Interfaces:

[java.awt.image.ImageObserver](#), [java.awt.MenuContainer](#), [java.io.Serializable](#),  
[javax.accessibility.Accessible](#), [javax.swing.RootPaneContainer](#),  
[javax.swing.WindowConstants](#)

```
public class ListarInformacoes
  extends javax.swing.JFrame
```

Tela que lista todos os itens mapeáveis que estão cadastrados. Para isso, cria, posiciona e dimensiona o frame, adiciona o fundo e, percorrendo a lista de cadastrados, adiciona um painel (JPanel) para cada.

### See Also:

[Serialized Form](#)

## Nested Class Summary

### Nested Classes

Modifier and Type	Class and Description
private class	<a href="#"><b>ListarInformacoes.PanelArredondado</b></a> Classe privada que estende JPanel e representa um panel com borda arredondada.
private class	<a href="#"><b>ListarInformacoes.PanelMouseListener</b></a> Classe privada que estende MouseAdapter.

### Nested classes/interfaces inherited from class javax.swing.JFrame

[javax.swing.JFrame.AccessibleJFrame](#)

### Nested classes/interfaces inherited from class java.awt.Frame

[java.awt.Frame.AccessibleAWTFrame](#)

**Nested classes/interfaces inherited from class java.awt.Window**

java.awt.Window.AccessibleAWTWindow, java.awt.Window.Type

**Nested classes/interfaces inherited from class java.awt.Container**

java.awt.Container.AccessibleAWTContainer

**Nested classes/interfaces inherited from class java.awt.Component**

java.awt.Component.AccessibleAWTComponent,  
java.awt.Component.BaselineResizeBehavior,  
java.awt.Component.BltBufferStrategy,  
java.awt.Component.FlipBufferStrategy

**Field Summary****Fields**

Modifier and Type	Field and Description
(package private)	<a href="#">PanelFundo</a> <b>fundo</b>

**Fields inherited from class javax.swing.JFrame**

accessibleContext, EXIT\_ON\_CLOSE, rootPane, rootPaneCheckingEnabled

**Fields inherited from class java.awt.Frame**

CROSSHAIR\_CURSOR, DEFAULT\_CURSOR, E\_RESIZE\_CURSOR, HAND\_CURSOR,  
ICONIFIED, MAXIMIZED\_BOTH, MAXIMIZED\_HORIZ, MAXIMIZED\_VERT, MOVE\_CURSOR,  
N\_RESIZE\_CURSOR, NE\_RESIZE\_CURSOR, NORMAL, NW\_RESIZE\_CURSOR,  
S\_RESIZE\_CURSOR, SE\_RESIZE\_CURSOR, SW\_RESIZE\_CURSOR, TEXT\_CURSOR,  
W\_RESIZE\_CURSOR, WAIT\_CURSOR

**Fields inherited from class java.awt.Component**

BOTTOM\_ALIGNMENT, CENTER\_ALIGNMENT, LEFT\_ALIGNMENT, RIGHT\_ALIGNMENT,  
TOP\_ALIGNMENT

**Fields inherited from interface javax.swing.WindowConstants**

DISPOSE\_ON\_CLOSE, DO\_NOTHING\_ON\_CLOSE, HIDE\_ON\_CLOSE

**Fields inherited from interface java.awt.image.ImageObserver**

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS, WIDTH

## Constructor Summary

### Constructors

#### Constructor and Description

**ListarInformacoes**(**Tracker** tracker)

Construtor da classe.

## Method Summary

### All Methods    Instance Methods    Concrete Methods

#### Modifier and Type    Method and Description

private void	<b>percorreCadastrados</b> ( <b>Tracker</b> tracker) Método que, a partir da referencia à Tracker, percorre a lista de cadastrados no sistema e, para cada um deles, cria um painel (JPanel) com informações.
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### Methods inherited from class javax.swing.JFrame

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

### Methods inherited from class java.awt.Frame

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify, setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

### Methods inherited from class java.awt.Window

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop,



isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, paint, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

### Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

### Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth,

getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow, resize, resize, revalidate, setComponentOrientation, setDropTarget, setEnabled, setFocusable, setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale, setMaximumSize, setName, setPreferredSize, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

### Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

### Methods inherited from interface java.awt.MenuContainer

getFont, postEvent

## Field Detail

### fundo

`PanelFundo` fundo

## Constructor Detail

### ListarInformacoes

```
public ListarInformacoes(Tracker tracker)
                        throws java.awt.HeadlessException
```

Construtor da classe. Cria, posiciona e dimensiona o frame. Adiciona o botão para voltar para a tela inicial. Chama o método que cria os painéis para cadastrados.

**Parameters:**

tracker - - referência à Tracker, gerenciador do mapa.

**Throws:**

java.awt.HeadlessException

**Method Detail****percorreCadastrados**

```
private void percorreCadastrados(Tracker tracker)
```

Método que, a partir da referencia à Tracker, percorre a lista de cadastrados no sistema e, para cada um deles, cria um painel (JPanel) com informações.

**Parameters:**

tracker - - referencia à Tracker, gerenciador do mapa.

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ui

## Class ListarInformacoes.PanelMouseListener

```
java.lang.Object
  java.awt.event.MouseAdapter
    ui.ListarInformacoes.PanelMouseListener
```

### All Implemented Interfaces:

```
java.awt.event.MouseListener, java.awt.event.MouseMotionListener,
java.awt.event.MouseWheelListener, java.util.EventListener
```

### Enclosing class:

[ListarInformacoes](#)

```
private class ListarInformacoes.PanelMouseListener
  extends java.awt.event.MouseAdapter
```

Classe privada que estende `MouseListener`. Trata as ações de entrar/sair do panel (adicionando hover) e clicar (abrindo um frame com informações específicas do objeto).

### Field Summary

#### Fields

Modifier and Type	Field and Description
(package private) java.awt.Color	<a href="#">corFundoOriginal</a>
(package private) <a href="#">Tracker</a>	<a href="#">tracker</a>

### Constructor Summary

#### Constructors

##### Constructor and Description

[PanelMouseListener](#)(java.awt.Color [corFundoOriginal](#), [Tracker](#) [tracker](#))  
Construtor da classe.

### Method Summary

#### All Methods    Instance Methods    Concrete Methods

Modifier and Type	Method and Description
-------------------	------------------------

private void	<b>criaFrame</b> (Cadastravel objeto) Método que, a partir de um objeto Cadastravel, cria um frame listando informações detalhadas e específicas ao objeto.
void	<b>mouseClicked</b> (java.awt.event.MouseEvent e) Tratamento de evento de mouse clicado.
void	<b>mouseEntered</b> (java.awt.event.MouseEvent e) Tratamento de evento de mouse entrando no panel.
void	<b>mouseExited</b> (java.awt.event.MouseEvent e) Tratamento de evento de mouse saindo do panel.

### Methods inherited from class java.awt.event.MouseAdapter

mouseDragged, mouseMoved, mousePressed, mouseReleased, mouseWheelMoved

### Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

### Field Detail

#### corFundoOriginal

java.awt.Color corFundoOriginal

#### tracker

Tracker tracker

## Constructor Detail

### PanelMouseListener

```
public PanelMouseListener(java.awt.Color corFundoOriginal,  
                           Tracker tracker)
```

Construtor da classe. Recebe a cor do fundo e um objeto de tracker (necessário para a ação de apagar um cadastrado).

**Parameters:**

corFundoOriginal -

tracker -

## Method Detail

### mouseClicked

```
public void mouseClicked(java.awt.event.MouseEvent e)
```

Tratamento de evento de mouse clicado. Pega o objeto e chama o método que cria o frame de informações específicas dele.

**Specified by:**

mouseClicked in interface java.awt.event.MouseListener

**Overrides:**

mouseClicked in class java.awt.event.MouseAdapter

**Parameters:**

e - MouseEvent

### mouseEntered

```
public void mouseEntered(java.awt.event.MouseEvent e)
```

Tratamento de evento de mouse entrando no panel. Altera a cor do panel para cinza claro.

**Specified by:**

mouseEntered in interface java.awt.event.MouseListener

**Overrides:**

mouseEntered in class java.awt.event.MouseAdapter

**Parameters:**

e - MouseEvent

### mouseExited

```
public void mouseExited(java.awt.event.MouseEvent e)
```

Tratamento de evento de mouse saindo do panel. Altera a cor do panel de novo para a cor original.

**Specified by:**

mouseExited in interface `java.awt.event.MouseListener`

**Overrides:**

mouseExited in class `java.awt.event.MouseAdapter`

**Parameters:**

e - `MouseEvent`

**criaFrame**

```
private void criaFrame(Cadastravel objeto)
```

Método que, a partir de um objeto `Cadastravel`, cria um frame listando informações detalhadas e específicas ao objeto.

**Parameters:**

objeto -

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ui

## Class ListarInformacoes.PanelArredondado

```
java.lang.Object
  java.awt.Component
    java.awt.Container
      javax.swing.JComponent
        javax.swing.JPanel
          ui.ListarInformacoes.PanelArredondado
```

### All Implemented Interfaces:

[java.awt.image.ImageObserver](#), [java.awt.MenuContainer](#), [java.io.Serializable](#),  
[javax.accessibility.Accessible](#)

### Enclosing class:

[ListarInformacoes](#)

```
private class ListarInformacoes.PanelArredondado
  extends javax.swing.JPanel
```

Classe privada que estende JPanel e representa um panel com borda arredondada. Qualquer objeto da classe possui um mouse listener (para hover e frame de informações detalhadas).

### Nested Class Summary

#### Nested classes/interfaces inherited from class javax.swing.JPanel

[javax.swing.JPanel.AccessibleJPanel](#)

#### Nested classes/interfaces inherited from class javax.swing.JComponent

[javax.swing.JComponent.AccessibleJComponent](#)

#### Nested classes/interfaces inherited from class java.awt.Container

[java.awt.Container.AccessibleAWTContainer](#)

#### Nested classes/interfaces inherited from class java.awt.Component

[java.awt.Component.AccessibleAWTComponent](#),  
[java.awt.Component.BaselineResizeBehavior](#),  
[java.awt.Component.BltBufferStrategy](#),  
[java.awt.Component.FlipBufferStrategy](#)



## Field Summary

### Fields

Modifier and Type	Field and Description
(package private)	<a href="#">Cadastravel</a> <a href="#">objeto</a>

### Fields inherited from class javax.swing.JComponent

listenerList, TOOL\_TIP\_TEXT\_KEY, ui, UNDEFINED\_CONDITION, WHEN\_ANCESTOR\_OF\_FOCUSED\_COMPONENT, WHEN\_FOCUSED, WHEN\_IN\_FOCUSED\_WINDOW

### Fields inherited from class java.awt.Component

accessibleContext, BOTTOM\_ALIGNMENT, CENTER\_ALIGNMENT, LEFT\_ALIGNMENT, RIGHT\_ALIGNMENT, TOP\_ALIGNMENT

### Fields inherited from interface java.awt.image.ImageObserver

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS, WIDTH

## Constructor Summary

### Constructors

#### Constructor and Description

[PanelArredondado](#)(java.awt.Color corOriginal, [Cadastravel](#) objeto, [Tracker](#) tracker)

## Method Summary

### All Methods    Instance Methods    Concrete Methods

Modifier and Type	Method and Description
protected void	<a href="#">paintComponent</a> (java.awt.Graphics g) Método sobrescrito para fazer as bordas arredondadas.

### Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, paramString, setUI, updateUI

### Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable,

firePropertyChange, firePropertyChange, firePropertyChange,  
fireVetoableChange, getActionForKeyStroke, getActionMap, getAlignmentX,  
getAlignmentY, getAncestorListeners, getAutoscrolls, getBaseline,  
getBaselineResizeBehavior, getBorder, getBounds, getClientProperty,  
getComponentGraphics, getComponentPopupMenu, getConditionForKeyStroke,  
getDebugGraphicsOptions, getDefaultLocale, getFontMetrics, getGraphics,  
getHeight, getInheritsPopupMenu, getInputMap, getInputMap,  
getInputVerifier, getInsets, getInsets, getListeners, getLocation,  
getMaximumSize, getMinimumSize, getNextFocusableComponent,  
getPopupLocation, getPreferredSize, getRegisteredKeyStrokes, getRootPane,  
getSize, getToolTipLocation, getToolTipText, getToolTipText,  
getTopLevelAncestor, getTransferHandler, getVerifyInputWhenFocusTarget,  
getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY,  
grabFocus, hide, isDoubleBuffered, isLightweightComponent,  
isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint,  
isPaintingOrigin, isPaintingTile, isRequestFocusEnabled, isValidRoot,  
paint, paintBorder, paintChildren, paintImmediately, paintImmediately,  
print, printAll, printBorder, printChildren, printComponent,  
processComponentKeyEvent, processKeyBinding, processKeyEvent,  
processMouseEvent, processMouseEvent, putClientProperty,  
registerKeyboardAction, registerKeyboardAction, removeAncestorListener,  
removeNotify, removeVetoableChangeListener, repaint, repaint,  
requestDefaultFocus, requestFocus, requestFocus, requestFocusInWindow,  
requestFocusInWindow, resetKeyboardActions, reshape, revalidate,  
scrollRectToVisible, setActionMap, setAlignmentX, setAlignmentY,  
setAutoscrolls, setBackground, setBorder, setComponentPopupMenu,  
setDebugGraphicsOptions, setDefaultLocale, setDoubleBuffered, setEnabled,  
setFocusTraversalKeys, setFont, setForeground, setInheritsPopupMenu,  
setInputMap, setInputVerifier, setMaximumSize, setMinimumSize,  
setNextFocusableComponent, setOpaque, setPreferredSize,  
setRequestFocusEnabled, setToolTipText, setTransferHandler, setUI,  
setVerifyInputWhenFocusTarget, setVisible, unregisterKeyboardAction,  
update

### Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addImpl,  
addPropertyChangeListener, addPropertyChangeListener,  
applyComponentOrientation, areFocusTraversalKeysSet, countComponents,  
deliverEvent, doLayout, findComponentAt, findComponentAt, getComponent,  
getComponentAt, getComponentAt, getComponentCount, getComponents,  
getComponentZOrder, getContainerListeners, getFocusTraversalKeys,  
getFocusTraversalPolicy, getLayout, getMousePosition, insets, invalidate,  
isAncestorOf, isFocusCycleRoot, isFocusCycleRoot,  
isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list,  
list, locate, minimumSize, paintComponents, preferredSize,  
printComponents, processContainerEvent, processEvent, remove, remove,  
removeAll, removeContainerListener, setComponentZOrder,  
setFocusCycleRoot, setFocusTraversalPolicy,  
setFocusTraversalPolicyProvider, setLayout, transferFocusDownCycle,  
validate, validateTree

## Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, createImage, createImage, createVolatileImage, createVolatileImage, disableEvents, dispatchEvent, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBackground, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getForeground, getGraphicsConfiguration, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocale, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getToolkit, getTreeLock, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, postEvent, prepareImage, prepareImage, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processMouseWheelEvent, remove, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, resize, resize, setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setFocusable, setFocusTraversalKeysEnabled, setIgnoreRepaint, setLocale, setLocation, setLocation, setName, setSize, setSize, show, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

## Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

## Field Detail

**objeto**

Cadastravel objeto

## Constructor Detail

### PanelArredondado

```
public PanelArredondado(java.awt.Color corOriginal,
                        Cadastravel objeto,
                        Tracker tracker)
```

## Method Detail

### paintComponent

```
protected void paintComponent(java.awt.Graphics g)
```

Método sobrescrito para fazer as bordas arredondadas. Usa um objeto de Graphics2D para preencher o Panel e desenhar a borda com borda radial.

#### Overrides:

paintComponent in class javax.swing.JComponent

#### Parameters:

g - the Graphics object to protect

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ui

## Class PanelFundo

```
java.lang.Object
  java.awt.Component
    java.awt.Container
      javax.swing.JComponent
        javax.swing.JLayeredPane
          ui.PanelFundo
```

### All Implemented Interfaces:

[java.awt.image.ImageObserver](#), [java.awt.MenuContainer](#), [java.io.Serializable](#),  
[javax.accessibility.Accessible](#)

---

```
public class PanelFundo
  extends javax.swing.JLayeredPane
```

Classe que representa o painel usado como fundo no sistema. Estende [JLayeredPane](#), o que permite a sobreposição de outros elementos, e possui como atributo a foto de fundo.

### See Also:

[Serialized Form](#)

## ***Nested Class Summary***

### **Nested classes/interfaces inherited from class javax.swing.JLayeredPane**

`javax.swing.JLayeredPane.AccessibleJLayeredPane`

### **Nested classes/interfaces inherited from class javax.swing.JComponent**

`javax.swing.JComponent.AccessibleJComponent`

### **Nested classes/interfaces inherited from class java.awt.Container**

`java.awt.Container.AccessibleAWTContainer`

### **Nested classes/interfaces inherited from class java.awt.Component**

`java.awt.Component.AccessibleAWTComponent,`  
`java.awt.Component.BaselineResizeBehavior,`  
`java.awt.Component.BltBufferStrategy,`  
`java.awt.Component.FlipBufferStrategy`

## ***Field Summary***

### **Fields**

Modifier and Type	Field and Description
-------------------	-----------------------

<code>private java.awt.image.BufferedImage</code>	<code>fundo</code>
---	--------------------

### **Fields inherited from class javax.swing.JLayeredPane**

`DEFAULT_LAYER,` `DRAG_LAYER,` `FRAME_CONTENT_LAYER,` `LAYER_PROPERTY,`  
`MODAL_LAYER,` `PALETTE_LAYER,` `POPUP_LAYER`

### **Fields inherited from class javax.swing.JComponent**

`listenerList,` `TOOL_TIP_TEXT_KEY,` `ui,` `UNDEFINED_CONDITION,`  
`WHEN_ANCESTOR_OF_FOCUSED_COMPONENT,` `WHEN_FOCUSED,` `WHEN_IN_FOCUSED_WINDOW`

### **Fields inherited from class java.awt.Component**

`accessibleContext,` `BOTTOM_ALIGNMENT,` `CENTER_ALIGNMENT,` `LEFT_ALIGNMENT,`  
`RIGHT_ALIGNMENT,` `TOP_ALIGNMENT`

## Fields inherited from interface java.awt.image.ImageObserver

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS, WIDTH

## Constructor Summary

### Constructors

#### Constructor and Description

##### **PanelFundo()**

Construtor da classe.

## Method Summary

### All Methods    Instance Methods    Concrete Methods

Modifier and Type	Method and Description
java.awt.image.BufferedImage	<b>getFundo()</b> Método de acesso à imagem de fundo.
protected void	<b>paintComponent</b> (java.awt.Graphics g) Desenha a imagem da maneira desejada para representação.

## Methods inherited from class javax.swing.JLayeredPane

addImpl, getAccessibleContext, getComponentCountInLayer, getComponentsInLayer, getComponentToLayer, getIndexOf, getLayer, getLayer, getLayeredPaneAbove, getObjectForLayer, getPosition, highestLayer, insertIndexForLayer, isOptimizedDrawingEnabled, lowestLayer, moveToBack, moveToFront, paint, paramString, putLayer, remove, removeAll, setLayer, setLayer, setPosition

## Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, fireVetoableChange, getActionForKeyStroke, getActionMap, getAlignmentX, getAlignmentY, getAncestorListeners, getAutoscrolls, getBaseline, getBaselineResizeBehavior, getBorder, getBounds, getClientProperty, getComponentGraphics, getComponentPopupMenu, getConditionForKeyStroke, getDebugGraphicsOptions, getDefaultLocale, getFontMetrics, getGraphics, getHeight, getInheritsPopupMenu, getInputMap, getInputMap, getInputVerifier, getInsets, getInsets, getListeners, getLocation, getMaximumSize, getMinimumSize, getNextFocusableComponent, getPopupLocation, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText,

getTopLevelAncestor, getTransferHandler, getUIClassID,  
getVerifyInputWhenFocusTarget, getVetoableChangeListeners,  
getVisibleRect, getWidth, getX, getY, grabFocus, hide, isDoubleBuffered,  
isLightweightComponent, isManagingFocus, isOpaque, isPaintingForPrint,  
isPaintingOrigin, isPaintingTile, isRequestFocusEnabled, isValidRoot,  
paintBorder, paintChildren, paintImmediately, paintImmediately, print,  
printAll, printBorder, printChildren, printComponent,  
processComponentKeyEvent, processKeyBinding, processKeyEvent,  
processMouseEvent, processMouseEvent, putClientProperty,  
registerKeyboardAction, registerKeyboardAction, removeAncestorListener,  
removeNotify, removeVetoableChangeListener, repaint, repaint,  
requestDefaultFocus, requestFocus, requestFocus, requestFocusInWindow,  
requestFocusInWindow, resetKeyboardActions, reshape, revalidate,  
scrollRectToVisible, setActionMap, setAlignmentX, setAlignmentY,  
setAutoscrolls, setBackground, setBorder, setComponentPopupMenu,  
setDebugGraphicsOptions, setDefaultLocale, setDoubleBuffered, setEnabled,  
setFocusTraversalKeys, setFont, setForeground, setInheritsPopupMenu,  
setInputMap, setInputVerifier, setMaximumSize, setMinimumSize,  
setNextFocusableComponent, setOpaque, setPreferredSize,  
setRequestFocusEnabled, setToolTipText, setTransferHandler, setUI,  
setVerifyInputWhenFocusTarget, setVisible, unregisterKeyboardAction,  
update, updateUI

### Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addPropertyChangeListener,  
addPropertyChangeListener, applyComponentOrientation,  
areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout,  
findComponentAt, findComponentAt, getComponent, getComponentAt,  
getComponentAt, getComponentCount, getComponents, getComponentZOrder,  
getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy,  
getLayout, getMousePosition, insets, invalidate, isAncestorOf,  
isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider,  
isFocusTraversalPolicySet, layout, list, list, locate, minimumSize,  
paintComponents, preferredSize, printComponents, processContainerEvent,  
processEvent, remove, removeContainerListener, setComponentZOrder,  
setFocusCycleRoot, setFocusTraversalPolicy,  
setFocusTraversalPolicyProvider, setLayout, transferFocusDownCycle,  
validate, validateTree

### Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener,  
addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener,  
addKeyListener, addMouseListener, addMouseMotionListener,  
addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents,  
contains, createImage, createImage, createVolatileImage,  
createVolatileImage, disableEvents, dispatchEvent, enable, enableEvents,  
enableInputMethods, firePropertyChange, firePropertyChange,  
firePropertyChange, firePropertyChange, firePropertyChange,  
firePropertyChange, getBackground, getBounds, getColorModel,



```
getComponentListeners, getComponentOrientation, getCursor, getDropTarget,
getFocusCycleRootAncestor, getFocusListeners,
getFocusTraversalKeysEnabled, getFont, getForeground,
getGraphicsConfiguration, getHierarchyBoundsListeners,
getHierarchyListeners, getIgnoreRepaint, getInputContext,
getInputMethodListeners, getInputMethodRequests, getKeyListeners,
getLocale, getLocation, getLocationOnScreen, getMouseListeners,
getMouseMotionListeners, getMousePosition, getMouseWheelListeners,
getName, getParent, getPeer, getPropertyChangeListeners,
getPropertyChangeListeners, getSize, getToolkit, getTreeLock, gotFocus,
handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet,
isDisplayable, isEnabled, isFocusable, isFocusOwner, isFocusTraversable,
isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet,
isMinimumSizeSet, isPreferredSizeSet, isShowing, isValid, isVisible,
keyDown, keyUp, list, list, list, location, lostFocus, mouseDown,
mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus,
paintAll, postEvent, prepareImage, prepareImage, processComponentEvent,
processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent,
processInputMethodEvent, processMouseWheelEvent, remove,
removeComponentListener, removeFocusListener,
removeHierarchyBoundsListener, removeHierarchyListener,
removeInputMethodListener, removeKeyListener, removeMouseListener,
removeMouseMotionListener, removeMouseWheelListener,
removePropertyChangeListener, removePropertyChangeListener, repaint,
repaint, repaint, resize, resize, setBounds, setBounds,
setComponentOrientation, setCursor, setDropTarget, setFocusable,
setFocusTraversalKeysEnabled, setIgnoreRepaint, setLocale, setLocation,
setLocation, setName, setSize, setSize, show, show, size, toString,
transferFocus, transferFocusBackward, transferFocusUpCycle
```

### Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait,
wait, wait
```

### Field Detail

#### fundo

```
private java.awt.image.BufferedImage fundo
```

### Constructor Detail

#### PanelFundo

```
public PanelFundo()
```

Construtor da classe. Atribui ao fundo a imagem.

## Method Detail

### paintComponent

```
protected void paintComponent(java.awt.Graphics g)
```

Desenha a imagem da maneira desejada para representação.

**Overrides:**

paintComponent in class javax.swing.JComponent

**Parameters:**

g - the Graphics object to protect.

### getFundo

```
public java.awt.image.BufferedImage getFundo()
```

Método de acesso à imagem de fundo.

**Returns:**

BufferedImage imagem de fundo

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ui.mapa

## Class MapPane

```
java.lang.Object
  java.awt.Component
    java.awt.Container
      javax.swing.JComponent
        javax.swing.JLayeredPane
          ui.mapa.MapPane
```

### All Implemented Interfaces:

[java.awt.image.ImageObserver](#), [java.awt.MenuContainer](#), [java.io.Serializable](#),  
[javax.accessibility.Accessible](#)

---

```
public class MapPane
  extends javax.swing.JLayeredPane
  implements java.io.Serializable
```

Representa o fundo do mapa, estendendo [JLayeredPane](#) para adição de ícones sobre o mapa e [Serializable](#) para serialização e armazenamento.

### See Also:

[Serialized Form](#)

### *Nested Class Summary*

#### **Nested classes/interfaces inherited from class javax.swing.JLayeredPane**

[javax.swing.JLayeredPane.AccessibleJLayeredPane](#)

#### **Nested classes/interfaces inherited from class javax.swing.JComponent**

[javax.swing.JComponent.AccessibleJComponent](#)

#### **Nested classes/interfaces inherited from class java.awt.Container**

[java.awt.Container.AccessibleAWTContainer](#)

#### **Nested classes/interfaces inherited from class java.awt.Component**

[java.awt.Component.AccessibleAWTComponent](#),  
[java.awt.Component.BaselineResizeBehavior](#),  
[java.awt.Component.BltBufferStrategy](#),

```
java.awt.Component.FlipBufferStrategy
```

## Field Summary

### Fields

Modifier and Type	Field and Description
private java.awt.image.BufferedImage	<a href="#">mapa</a>

### Fields inherited from class javax.swing.JLayeredPane

DEFAULT\_LAYER, DRAG\_LAYER, FRAME\_CONTENT\_LAYER, LAYER\_PROPERTY, MODAL\_LAYER, PALETTE\_LAYER, POPUP\_LAYER

### Fields inherited from class javax.swing.JComponent

listenerList, TOOL\_TIP\_TEXT\_KEY, ui, UNDEFINED\_CONDITION, WHEN\_ANCESTOR\_OF\_FOCUSED\_COMPONENT, WHEN\_FOCUSED, WHEN\_IN\_FOCUSED\_WINDOW

### Fields inherited from class java.awt.Component

accessibleContext, BOTTOM\_ALIGNMENT, CENTER\_ALIGNMENT, LEFT\_ALIGNMENT, RIGHT\_ALIGNMENT, TOP\_ALIGNMENT

### Fields inherited from interface java.awt.image.ImageObserver

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS, WIDTH

## Constructor Summary

### Constructors

Constructor and Description
<a href="#">MapPane()</a> Construtor da classe.

## Method Summary

### All Methods    Instance Methods    Concrete Methods

Modifier and Type	Method and Description
java.awt.Dimension	<a href="#">getPreferredSize()</a> Método de acesso ao tamanho do mapa.

```
protected void      paintComponent(java.awt.Graphics g)
```

Método para apresentar a imagem do mapa.

### Methods inherited from class javax.swing.JLayeredPane

```
addImpl, getAccessibleContext, getComponentCountInLayer,  
getComponentsInLayer, getComponentToLayer, getIndexOf, getLayer,  
getLayer, getLayeredPaneAbove, getObjectForLayer, getPosition,  
highestLayer, insertIndexForLayer, isOptimizedDrawingEnabled,  
lowestLayer, moveToBack, moveToFront, paint, paramString, putLayer,  
remove, removeAll, setLayer, setLayer, setPosition
```

### Methods inherited from class javax.swing.JComponent

```
addAncestorListener, addNotify, addVetoableChangeListener,  
computeVisibleRect, contains, createToolTip, disable, enable,  
firePropertyChange, firePropertyChange, firePropertyChange,  
fireVetoableChange, getActionForKeyStroke, getActionMap, getAlignmentX,  
getAlignmentY, getAncestorListeners, getAutoscrolls, getBaseline,  
getBaselineResizeBehavior, getBorder, getBounds, getClientProperty,  
getComponentGraphics, getComponentPopupMenu, getConditionForKeyStroke,  
getDebugGraphicsOptions, getDefaultLocale, getFontMetrics, getGraphics,  
getHeight, getInheritsPopupMenu, getInputMap, getInputMap,  
getInputVerifier, getInsets, getInsets, getListeners, getLocation,  
getMaximumSize, getMinimumSize, getNextFocusableComponent,  
getPopupLocation, getRegisteredKeyStrokes, getRootPane, getSize,  
getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor,  
getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget,  
getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY,  
grabFocus, hide, isDoubleBuffered, isLightweightComponent,  
isManagingFocus, isOpaque, isPaintingForPrint, isPaintingOrigin,  
isPaintingTile, isRequestFocusEnabled, isValidRoot, paintBorder,  
paintChildren, paintImmediately, paintImmediately, print, printAll,  
printBorder, printChildren, printComponent, processComponentKeyEvent,  
processKeyBinding, processKeyEvent, processMouseEvent,  
processMouseMotionEvent, putClientProperty, registerKeyboardAction,  
registerKeyboardAction, removeAncestorListener, removeNotify,  
removeVetoableChangeListener, repaint, repaint, requestDefaultFocus,  
requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow,  
resetKeyboardActions, reshape, revalidate, scrollRectToVisible,  
setActionMap, setAlignmentX, setAlignmentY, setAutoscrolls,  
setBackground, setBorder, setComponentPopupMenu, setDebugGraphicsOptions,  
setDefaultLocale, setDoubleBuffered, setEnabled, setFocusTraversalKeys,  
setFont, setForeground, setInheritsPopupMenu, setInputMap,  
setInputVerifier, setMaximumSize, setMinimumSize,  
setNextFocusableComponent, setOpaque, setPreferredSize,  
setRequestFocusEnabled, setToolTipText, setTransferHandler, setUI,  
setVerifyInputWhenFocusTarget, setVisible, unregisterKeyboardAction,  
update, updateUI
```

## Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getLayout, getMousePosition, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, printComponents, processContainerEvent, processEvent, remove, removeContainerListener, setComponentZOrder, setFocusCycleRoot, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setLayout, transferFocusDownCycle, validate, validateTree

## Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, createImage, createImage, createVolatileImage, createVolatileImage, disableEvents, dispatchEvent, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBackground, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getForeground, getGraphicsConfiguration, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocale, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getToolkit, getTreeLock, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, postEvent, prepareImage, prepareImage, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processMouseWheelEvent, remove, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener,

removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, resize, resize, setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setFocusable, setFocusTraversalKeysEnabled, setIgnoreRepaint, setLocale, setLocation, setLocation, setName, setSize, setSize, show, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

### Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

## Field Detail

### mapa

```
private transient java.awt.image.BufferedImage mapa
```

## Constructor Detail

### MapPane

```
public MapPane()
```

Construtor da classe. Atribui a imagem do mapa.

## Method Detail

### getPreferredSize

```
public java.awt.Dimension getPreferredSize()
```

Método de acesso ao tamanho do mapa.

#### Overrides:

getPreferredSize in class javax.swing.JComponent

#### Returns:

Dimension tamanho do mapa.

### paintComponent

```
protected void paintComponent(java.awt.Graphics g)
```

Método para apresentar a imagem do mapa.

**Overrides:**

paintComponent in class javax.swing.JComponent

**Parameters:**

g - the Graphics object to protect

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ui.mapa

## Class **Marker<T extends Cadastravel>**

```
java.lang.Object
  java.awt.Component
    java.awt.Container
      javax.swing.JComponent
        javax.swing.JLabel
          ui.mapa.Marker<T>
```

### All Implemented Interfaces:

java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable,  
javax.accessibility.Accessible, javax.swing.SwingConstants

---

```
public class Marker<T extends Cadastravel>
  extends javax.swing.JLabel
  implements java.io.Serializable
```

Classe abstrata que representa marcadores de mapa, estendendo JLabel. Possui como atributos o objeto que representa e seu ícone.

### See Also:

[Serialized Form](#)

## ***Nested Class Summary***

### **Nested classes/interfaces inherited from class javax.swing.JLabel**

`javax.swing.JLabel.AccessibleJLabel`

### **Nested classes/interfaces inherited from class javax.swing.JComponent**

`javax.swing.JComponent.AccessibleJComponent`

### **Nested classes/interfaces inherited from class java.awt.Container**

`java.awt.Container.AccessibleAWTContainer`

### **Nested classes/interfaces inherited from class java.awt.Component**

`java.awt.Component.AccessibleAWTComponent,`  
`java.awt.Component.BaselineResizeBehavior,`  
`java.awt.Component.BltBufferStrategy,`  
`java.awt.Component.FlipBufferStrategy`

## ***Field Summary***

### **Fields**

<b>Modifier and Type</b>	<b>Field and Description</b>
<code>private javax.swing.ImageIcon</code>	<code>imagem</code>
<code>private T</code>	<code>objeto</code>

### **Fields inherited from class javax.swing.JLabel**

`labelFor`

### **Fields inherited from class javax.swing.JComponent**

`listenerList,` `TOOL_TIP_TEXT_KEY,` `ui,` `UNDEFINED_CONDITION,`  
`WHEN_ANCESTOR_OF_FOCUSED_COMPONENT,` `WHEN_FOCUSED,` `WHEN_IN_FOCUSED_WINDOW`

### **Fields inherited from class java.awt.Component**

`accessibleContext,` `BOTTOM_ALIGNMENT,` `CENTER_ALIGNMENT,` `LEFT_ALIGNMENT,`  
`RIGHT_ALIGNMENT,` `TOP_ALIGNMENT`

### **Fields inherited from interface javax.swing.SwingConstants**

BOTTOM, CENTER, EAST, HORIZONTAL, LEADING, LEFT, NEXT, NORTH, NORTH\_EAST, NORTH\_WEST, PREVIOUS, RIGHT, SOUTH, SOUTH\_EAST, SOUTH\_WEST, TOP, TRAILING, VERTICAL, WEST

### Fields inherited from interface java.awt.image.ImageObserver

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS, WIDTH

## Constructor Summary

### Constructors

#### Constructor and Description

**Marker**(**T** objeto)

Construtor da classe.

## Method Summary

### All Methods    Instance Methods    Concrete Methods

Modifier and Type	Method and Description
javax.swing.ImageIcon	<b>getImage()</b> Método de acesso à imagem.
<b>T</b>	<b>getObjeto()</b> Método de acesso ao objeto armazenado.
void	<b>setObjeto(T</b> objeto) Método de modificação do objeto armazenado.

### Methods inherited from class javax.swing.JLabel

checkHorizontalKey, checkVerticalKey, getAccessibleContext, getDisabledIcon, getDisplayedMnemonic, getDisplayedMnemonicIndex, getHorizontalAlignment, getHorizontalTextPosition, getIcon, getIconTextGap, getLabelFor, getText, getUI, getUIClassID, getVerticalAlignment, getVerticalTextPosition, imageUpdate, paramString, setDisabledIcon, setDisplayedMnemonic, setDisplayedMnemonic, setDisplayedMnemonicIndex, setHorizontalAlignment, setHorizontalTextPosition, setIcon, setIconTextGap, setLabelFor, setText, setUI, setVerticalAlignment, setVerticalTextPosition, updateUI

### Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange,

fireVetoableChange, getActionForKeyStroke, getActionMap, getAlignmentX, getAlignmentY, getAncestorListeners, getAutoscrolls, getBaseline, getBaselineResizeBehavior, getBorder, getBounds, getClientProperty, getComponentGraphics, getComponentPopupMenu, getConditionForKeyStroke, getDebugGraphicsOptions, getDefaultLocale, getFontMetrics, getGraphics, getHeight, getInheritsPopupMenu, getInputMap, getInputMap, getInputVerifier, getInsets, getInsets, getListeners, getLocation, getMaximumSize, getMinimumSize, getNextFocusableComponent, getPopupLocation, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, hide, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingOrigin, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, paintBorder, paintChildren, paintComponent, paintImmediately, paintImmediately, print, printAll, printBorder, printChildren, printComponent, processComponentKeyEvent, processKeyBinding, processKeyEvent, processMouseEvent, processMouseEvent, putClientProperty, registerKeyboardAction, registerKeyboardAction, removeAncestorListener, removeNotify, removeVetoableChangeListener, repaint, repaint, requestDefaultFocus, requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow, resetKeyboardActions, reshape, revalidate, scrollRectToVisible, setActionMap, setAlignmentX, setAlignmentY, setAutoscrolls, setBackground, setBorder, setComponentPopupMenu, setDebugGraphicsOptions, setDefaultLocale, setDoubleBuffered, setEnabled, setFocusTraversalKeys, setFont, setForeground, setInheritsPopupMenu, setInputMap, setInputVerifier, setMaximumSize, setMinimumSize, setNextFocusableComponent, setOpaque, setPreferredSize, setRequestFocusEnabled, setToolTipText, setTransferHandler, setUI, setVerifyInputWhenFocusTarget, setVisible, unregisterKeyboardAction, update

### Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addImpl, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getLayout, getMousePosition, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, printComponents, processContainerEvent, processEvent, remove, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusCycleRoot, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setLayout, transferFocusDownCycle, validate, validateTree

## Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, createImage, createImage, createVolatileImage, createVolatileImage, disableEvents, dispatchEvent, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBackground, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getForeground, getGraphicsConfiguration, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocale, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getToolkit, getTreeLock, gotFocus, handleEvent, hasFocus, inside, isBackgroundSet, isCursorSet, isDisplayable, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, postEvent, prepareImage, prepareImage, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processMouseWheelEvent, remove, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, resize, resize, setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setFocusable, setFocusTraversalKeysEnabled, setIgnoreRepaint, setLocale, setLocation, setLocation, setName, setSize, setSize, show, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

## Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

## Field Detail

**objeto**

```
private T extends Cadastravel objeto
```

#### **imagem**

```
private javax.swing.ImageIcon imagem
```

### **Constructor Detail**

#### **Marker**

```
public Marker(T objeto)
```

Construtor da classe. Recebe o objeto (Cadastravel) que o marcador representa e armazena ele e sua imagem.

**Parameters:**

objeto - objeto que o marcador representa.

### **Method Detail**

#### **getObjeto**

```
public T getObjeto()
```

Método de acesso ao objeto armazenado.

**Returns:**

T objeto que estende Cadastravel.

#### **setObjeto**

```
public void setObjeto(T objeto)
```

Método de modificação do objeto armazenado.

**Parameters:**

objeto - objeto que estende Cadastravel.

**getImagem**

```
public javax.swing.ImageIcon getImagem()
```

Método de acesso à imagem.

**Returns:**

`ImageIcon` imagem do objeto.

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ui.mapa

## Class Tracker

```
java.lang.Object
  java.awt.Component
    java.awt.Container
      javax.swing.JComponent
        javax.swing.JPanel
          ui.mapa.Tracker
```

### All Implemented Interfaces:

[java.awt.image.ImageObserver](#), [java.awt.MenuContainer](#), [java.io.Serializable](#),  
[javax.accessibility.Accessible](#)

---

```
public class Tracker
  extends javax.swing.JPanel
  implements java.io.Serializable
```

Classe responsável por controlar mapa e cadastros. Possui como atributos o frame, o MapPane (fundo do mapa) e uma lista de Markers cadastrados. Permite o cadastro de Markers, adicionando-os à tela (ao mapa). Implemente [Serializable](#), o que permite sua serialização e armazenamento.

### See Also:

[Serialized Form](#)

### *Nested Class Summary*

#### **Nested classes/interfaces inherited from class javax.swing.JPanel**

[javax.swing.JPanel.AccessibleJPanel](#)

#### **Nested classes/interfaces inherited from class javax.swing.JComponent**

[javax.swing.JComponent.AccessibleJComponent](#)

#### **Nested classes/interfaces inherited from class java.awt.Container**

[java.awt.Container.AccessibleAWTContainer](#)

#### **Nested classes/interfaces inherited from class java.awt.Component**

[java.awt.Component.AccessibleAWTComponent](#),  
[java.awt.Component.BaselineResizeBehavior](#),  
[java.awt.Component.BltBufferStrategy](#),



```
java.awt.Component.FlipBufferStrategy
```

## Field Summary

### Fields

Modifier and Type	Field and Description
private javax.swing.JFrame	<a href="#">frame</a>
private java.util.ArrayList< <a href="#">Marker</a> >	<a href="#">markers</a>
private <a href="#">MapPane</a>	<a href="#">paneMapa</a>

### Fields inherited from class javax.swing.JComponent

listenerList, TOOL\_TIP\_TEXT\_KEY, ui, UNDEFINED\_CONDITION, WHEN\_ANCESTOR\_OF\_FOCUSED\_COMPONENT, WHEN\_FOCUSED, WHEN\_IN\_FOCUSED\_WINDOW

### Fields inherited from class java.awt.Component

accessibleContext, BOTTOM\_ALIGNMENT, CENTER\_ALIGNMENT, LEFT\_ALIGNMENT, RIGHT\_ALIGNMENT, TOP\_ALIGNMENT

### Fields inherited from interface java.awt.image.ImageObserver

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS, WIDTH

## Constructor Summary

### Constructors

#### Constructor and Description

[Tracker](#)()

## Method Summary

### All Methods    Instance Methods    Concrete Methods

Modifier and Type	Method and Description
<T extends <a href="#">Cadastravel</a> > void	<a href="#">cadastrar</a> (T objeto) Método para cadastro de novos markers.
<T extends <a href="#">Cadastravel</a> > void	<a href="#">excluir</a> (T objeto)

<code>javax.swing.JFrame</code>	<b><code>getFrame()</code></b> Método de acesso ao frame do mapa.
<code>java.util.ArrayList&lt;Marker&gt;</code>	<b><code>getMarkers()</code></b> Método de acesso à ArrayList de markers.
<b>MapPane</b>	<b><code>getPaneMapa()</code></b> Método de acesso ao panel do mapa.
<code>void</code>	<b><code>refresh()</code></b> Adiciona ao mapa todos os Markers cadastrados.
<code>void</code>	<b><code>run()</code></b> Instancia objetos de MapPane e de JFrame, dimensionando e organizando a tela.
<code>void</code>	<b><code>setMarkers(java.util.ArrayList&lt;Marker&gt; markers)</code></b> Método de mpdificação da ArrayList de markers.
<code>void</code>	<b><code>setPaneMapa(MapPane paneMapa)</code></b> Método de modificação do panel do mapa.

### Methods inherited from class javax.swing.JPanel

`getAccessibleContext`, `getUI`, `getUIClassID`,  `paramString`, `setUI`, `updateUI`

### Methods inherited from class javax.swing.JComponent

`addAncestorListener`, `addNotify`, `addVetoableChangeListener`, `computeVisibleRect`, `contains`, `createToolTip`, `disable`, `enable`, `firePropertyChange`, `firePropertyChange`, `firePropertyChange`, `fireVetoableChange`, `getActionForKeyStroke`, `getActionMap`, `getAlignmentX`, `getAlignmentY`, `getAncestorListeners`, `getAutoscrolls`, `getBaseline`, `getBaselineResizeBehavior`, `getBorder`, `getBounds`, `getClientProperty`, `getComponentGraphics`, `getComponentPopupMenu`, `getConditionForKeyStroke`, `getDebugGraphicsOptions`, `getDefaultLocale`, `getFontMetrics`, `getGraphics`, `getHeight`, `getInheritsPopupMenu`, `getInputMap`, `getInputMap`, `getInputVerifier`, `getInsets`, `getInsets`, `getListeners`, `getLocation`, `getMaximumSize`, `getMinimumSize`, `getNextFocusableComponent`, `getPopupLocation`, `getPreferredSize`, `getRegisteredKeyStrokes`, `getRootPane`, `getSize`, `getToolTipLocation`, `getToolTipText`, `getToolTipText`, `getTopLevelAncestor`, `getTransferHandler`, `getVerifyInputWhenFocusTarget`, `getVetoableChangeListeners`, `getVisibleRect`, `getWidth`, `getX`, `getY`, `grabFocus`, `hide`, `isDoubleBuffered`, `isLightweightComponent`, `isManagingFocus`, `isOpaque`, `isOptimizedDrawingEnabled`, `isPaintingForPrint`, `isPaintingOrigin`, `isPaintingTile`, `isRequestFocusEnabled`, `isValidRoot`, `paint`, `paintBorder`, `paintChildren`, `paintComponent`, `paintImmediately`, `paintImmediately`, `print`, `printAll`, `printBorder`, `printChildren`, `printComponent`, `processComponentKeyEvent`, `processKeyBinding`, `processKeyEvent`, `processMouseEvent`, `processMouseEvent`, `putClientProperty`, `registerKeyboardAction`, `registerKeyboardAction`, `removeAncestorListener`, `removeNotify`, `removeVetoableChangeListener`,

repaint, repaint, requestDefaultFocus, requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow, resetKeyboardActions, reshape, revalidate, scrollRectToVisible, setActionMap, setAlignmentX, setAlignmentY, setAutoscrolls, setBackground, setBorder, setComponentPopupMenu, setDebugGraphicsOptions, setDefaultLocale, setDoubleBuffered, setEnabled, setFocusTraversalKeys, setFont, setForeground, setInheritsPopupMenu, setInputMap, setInputVerifier, setMaximumSize, setMinimumSize, setNextFocusableComponent, setOpaque, setPreferredSize, setRequestFocusEnabled, setToolTipText, setTransferHandler, setUI, setVerifyInputWhenFocusTarget, setVisible, unregisterKeyboardAction, update

### Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addImpl, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getLayout, getMousePosition, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, printComponents, processContainerEvent, processEvent, remove, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusCycleRoot, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setLayout, transferFocusDownCycle, validate, validateTree

### Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, createImage, createImage, createVolatileImage, createVolatileImage, disableEvents, dispatchEvent, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBackground, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getForeground, getGraphicsConfiguration, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocale, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getToolkit, getTreeLock, gotFocus,

handleEvent, hasFocus, imageUpdate, inside, setBackgroundSet, isCursorSet, isDisplayable, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, postEvent, prepareImage, prepareImage, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processMouseEvent, remove, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, resize, resize, setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setFocusable, setFocusTraversalKeysEnabled, setIgnoreRepaint, setLocale, setLocation, setLocation, setName, setSize, setSize, show, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

### Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

## Field Detail

### frame

private javax.swing.JFrame frame

### paneMapa

private MapPane paneMapa

### markers

private java.util.ArrayList<Marker> markers

## Constructor Detail

**Tracker**

```
public Tracker()
```

**Method Detail****run**

```
public void run()
```

Instancia objetos de MapPane e de JFrame, dimensionando e organizando a tela. Chama o método privado refresh, que percorre os markers cadastrados e adiciona ao mapa.

**cadastrar**

```
public <T extends Cadastravel> void cadastrar(T objeto)
```

Método para cadastro de novos markers. Recebe o objeto a ser cadastrado e instancia um Marker, define o texto de foco com a descrição curta do objeto e o posiciona nas coordenadas determinadas.

**Parameters:**

objeto - objeto que estende a classe Cadastravel.

**refresh**

```
public void refresh()
```

Adiciona ao mapa todos os Markers cadastrados.

**excluir**

```
public <T extends Cadastravel> void excluir(T objeto)
```

**getFrame**

```
public javax.swing.JFrame getFrame()
```

Método de acesso ao frame do mapa.

**Returns:**

Jframe frame do mapa.

**getPaneMapa**

```
public MapPane getPaneMapa()
```

Método de acesso ao panel do mapa.

**Returns:**

MapPane panel do mapa..

**setPaneMapa**

```
public void setPaneMapa(MapPane paneMapa)
```

Método de modificação do panel do mapa.

**Parameters:**

paneMapa - objeto de MapPane, panel do mapa.

**getMarkers**

```
public java.util.ArrayList<Marker> getMarkers()
```

Método de acesso à ArrayList de markers.

**Returns:**

markers, ArrayList

**setMarkers**

```
public void setMarkers(java.util.ArrayList<Marker> markers)
```

Método de mpdificação da ArrayList de markers.

**Parameters:**

markers - nova ArrayList

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ui

## Class Cadastrar

```
java.lang.Object
  java.awt.Component
    java.awt.Container
      java.awt.Window
        java.awt.Frame
          javax.swing.JFrame
            ui.Cadastrar
```

### All Implemented Interfaces:

[java.awt.image.ImageObserver](#), [java.awt.MenuContainer](#), [java.io.Serializable](#),  
[javax.accessibility.Accessible](#), [javax.swing.RootPaneContainer](#),  
[javax.swing.WindowConstants](#)

```
public class Cadastrar
  extends javax.swing.JFrame
```

Tela de cadastro de objeto ao sistema. Apresenta opções de cadastro e campos específicos a partir da opção feita.

### See Also:

[Serialized Form](#)

### *Nested Class Summary*

#### **Nested classes/interfaces inherited from class javax.swing.JFrame**

[javax.swing.JFrame.AccessibleJFrame](#)

#### **Nested classes/interfaces inherited from class java.awt.Frame**

[java.awt.Frame.AccessibleAWTFrame](#)

#### **Nested classes/interfaces inherited from class java.awt.Window**

[java.awt.Window.AccessibleAWTWindow](#), [java.awt.Window.Type](#)

#### **Nested classes/interfaces inherited from class java.awt.Container**

[java.awt.Container.AccessibleAWTContainer](#)

#### **Nested classes/interfaces inherited from class java.awt.Component**

[java.awt.Component.AccessibleAWTComponent](#),

```
java.awt.Component.BaselineResizeBehavior,  
java.awt.Component.BltBufferStrategy,  
java.awt.Component.FlipBufferStrategy
```

Field Summary

Fields

Modifier and Type	Field and Description
private java.awt.CardLayout	<a href="#">cardlayout</a>
(package private) javax.swing.JPanel	<a href="#">cardPanel</a>
private java.lang.String[]	<a href="#">itens</a>
private javax.swing.JComboBox<java.lang.String>	<a href="#">itensBox</a>
private javax.swing.JLabel	<a href="#">select</a>

Fields inherited from class javax.swing.JFrame

accessibleContext, EXIT\_ON\_CLOSE, rootPane, rootPaneCheckingEnabled

Fields inherited from class java.awt.Frame

CROSSHAIR\_CURSOR, DEFAULT\_CURSOR, E\_RESIZE\_CURSOR, HAND\_CURSOR, ICONIFIED, MAXIMIZED\_BOTH, MAXIMIZED\_HORIZ, MAXIMIZED\_VERT, MOVE\_CURSOR, N\_RESIZE\_CURSOR, NE\_RESIZE\_CURSOR, NORMAL, NW\_RESIZE\_CURSOR, S\_RESIZE\_CURSOR, SE\_RESIZE\_CURSOR, SW\_RESIZE\_CURSOR, TEXT\_CURSOR, W\_RESIZE\_CURSOR, WAIT\_CURSOR

Fields inherited from class java.awt.Component

BOTTOM\_ALIGNMENT, CENTER\_ALIGNMENT, LEFT\_ALIGNMENT, RIGHT\_ALIGNMENT, TOP\_ALIGNMENT

Fields inherited from interface javax.swing.WindowConstants

DISPOSE\_ON\_CLOSE, DO\_NOTHING\_ON\_CLOSE, HIDE\_ON\_CLOSE

Fields inherited from interface java.awt.image.ImageObserver

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS, WIDTH

Constructor Summary



## Constructors

### Constructor and Description

**Cadastrar**(**Tracker** tracker)

## Method Summary

### All Methods    Instance Methods    Concrete Methods

Modifier and Type	Method and Description
private javax.swing.JPanel	<b>checkbox()</b> Estrutura básica do combobox tipo, que apresenta os tipos
private javax.swing.JPanel	<b>form</b> (java.lang.String selecionado, <b>Tracker</b> tracker) Retorna um JPanel com os campos específicos de cada classe.
private void	<b>inicializarTela()</b> Função para inializar a tela, segue o padrão das outras classes.

### Methods inherited from class javax.swing.JFrame

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

### Methods inherited from class java.awt.Frame

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify, setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

### Methods inherited from class java.awt.Window

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit,

getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, paint, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

### Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

### Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners,

getName, getParent, getPeer, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow, resize, resize, revalidate, setComponentOrientation, setDropTarget, setEnabled, setFocusable, setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale, setMaximumSize, setName, setPreferredSize, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

### Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

### Methods inherited from interface java.awt.MenuContainer

getFont, postEvent

## Field Detail

### cardlayout

private java.awt.CardLayout cardlayout

### cardPanel

javax.swing.JPanel cardPanel

### select

private javax.swing.JLabel select

**itens**

```
private java.lang.String[] itens
```

**itensBox**

```
private javax.swing.JComboBox<java.lang.String> itensBox
```

***Constructor Detail*****Cadastrar**

```
public Cadastrar(Tracker tracker)  
    throws java.awt.HeadlessException
```

**Throws:**

```
java.awt.HeadlessException
```

## Method Detail

### inicializarTela

```
private void inicializarTela()
```

Função para inializar a tela, segue o padrão das outras classes.

### checkbox

```
private javax.swing.JPanel checkbox()
```

Estrutura básica do combobox tipo, que apresenta os tipos

#### Returns:

### form

```
private javax.swing.JPanel form(java.lang.String selecionado,  
                                Tracker tracker)
```

Retorna um Jpanel com os campos específicos de cada classe. É chamado no acionListener do botão tipo.

#### Parameters:

selecionado -

tracker -

#### Returns:

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componentes

## Interface Mapeavel

**All Known Implementing Classes:**

Ameaca, Blitz, Cadastravel, Combate, Marcha, Patrulha, Rebeldes, Recebimento

public interface **Mapeavel**

Interface que determina métodos necessários para representação de um objeto em um mapa (como coordenadas, caminho do ícone do marcador e descrição).

**Method Summary**

**All Methods**      **Instance Methods**      **Abstract Methods**

Modifier and Type	Method and Description
java.lang.String	<b>getCaminhoImagem()</b> Método de acesso caminho da imagem do objeto no mapa.
int	<b>getCoordenadaX()</b> Método de acesso à coordenada X do objeto no mapa.
int	<b>getCoordenadaY()</b> Método de acesso à coordenada Y do objeto no mapa.
java.lang.String	<b>getDescricaoCurta()</b> Método de acesso à descrição do objeto no mapa.
void	<b>setCoordenadaX(int coordX)</b> Método de modificação da coordenada X do objeto no mapa.
void	<b>setCoordenadaY(int coordY)</b> Método de modificação da coordenada Y do objeto no mapa.

**Method Detail**

**getCoordenadaX**

int getCoordenadaX()

Método de acesso à coordenada X do objeto no mapa.

**Returns:**

int coordenada X.

#### **setCoordenadaX**

```
void setCoordenadaX(int coordX)
```

Método de modificação da coordenada X do objeto no mapa.

**Parameters:**

coordX - nova coordenada X do objeto.

#### **getCoordenadaY**

```
int getCoordenadaY()
```

Método de acesso à coordenada Y do objeto no mapa.

**Returns:**

int coordenada Y.

#### **setCoordenadaY**

```
void setCoordenadaY(int coordY)
```

Método de modificação da coordenada Y do objeto no mapa.

**Parameters:**

coordY - nova coordenada Y do objeto.

#### **getCaminhoImagem**

```
java.lang.String getCaminhoImagem()
```

Método de acesso caminho da imagem do objeto no mapa.

**Returns:**

String caminho da imagem.

#### **getDescricaoCurta**

```
java.lang.String getDescricaoCurta()
```

Método de acesso à descrição do objeto no mapa.

**Returns:**

String descrição.

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componentes

## Class Cadastravel

java.lang.Object  
    componentes.Cadastravel

### All Implemented Interfaces:

Mapeavel, java.io.Serializable

### Direct Known Subclasses:

Ameaca, Rebeldes

```
public abstract class Cadastravel
    extends java.lang.Object
    implements Mapeavel, java.io.Serializable
```

Classe abstrata que representa um objeto que pode ser cadastrado no sistema. Implementa a interface Mapeavel, o que permite a representação do objeto via mapa, e Serializable, para serialização e armazenamento.

### See Also:

Serialized Form

## Field Summary

### Fields

Modifier and Type	Field and Description
private int	<a href="#">coordenadaX</a>
private int	<a href="#">coordenadaY</a>
private java.lang.String	<a href="#">descricaoLonga</a>
private int	<a href="#">numeros</a>

## Constructor Summary

### Constructors

#### Constructor and Description

**Cadastravel**(int coordenadaX, int coordenadaY, java.lang.String descricaoLonga, int numeros)  
Construtor da classe.

## Method Summary

### All Methods

### Instance Methods

### Abstract Methods

### Concrete Methods

#### Modifier and Type

#### Method and Description

int

**getCoordenadaX()**

Método da interface de acesso à coordenada X cadastrada.

int

**getCoordenadaY()**

Método da interface de acesso à coordenada Y cadastrada.

java.lang.String

**getDescricaoLonga()**

Método de acesso à descrição cadastrada.

abstract java.lang.String

**getNomeClasse()**

Método abstrato que retorna o nome da classe.

int

**getNumeros()**

Método de acesso do número cadastrado.

void

**setCoordenadaX(int coordenadaX)**

Método da interface de modificação da coordenada X cadastrada.

void

**setCoordenadaY(int coordenadaY)**

Método da interface de mdificação da coordenada Y cadastrada.

void

**setDescricaoLonga(java.lang.String descricaoLonga)**

Método de modificação da descrição cadastrada.

void

**setNumeros(int numeros)**

Método de modificação do número cadastrado.

## Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

## Methods inherited from interface componentes.Mapeavel

getCaminhoImagem, getDescricaoCurta

## Field Detail

### coordenadaX

private int coordenadaX

### coordenadaY

```
private int coordenadaY
```

#### **descricaoLonga**

```
private java.lang.String descricaoLonga
```

#### **numeros**

```
private int numeros
```

### **Constructor Detail**

#### **Cadastravel**

```
public Cadastravel(int coordenadaX,  
                   int coordenadaY,  
                   java.lang.String descricaoLonga,  
                   int numeros)
```

Construtor da classe. Recebe como parâmetros os atributos do básicos para cadastro e realiza a atribuição.

**Parameters:**

coordenadaX - coordenada X no mapa.

coordenadaY - coordenada Y no mapa.

descricaoLonga - descrição sobre o objeto.

numeros - quantidade de representantes.

### **Method Detail**

#### **getCoordenadaX**

```
public int getCoordenadaX()
```

Método da interface de acesso à coordenada X cadastrada.

**Specified by:**

`getCoordenadaX` in interface `Mapeavel`

**Returns:**

coordenada X.

#### **setCoordenadaX**

```
public void setCoordenadaX(int coordenadaX)
```

Método da interface de modificação da coordenada X cadastrada.

**Specified by:**

`setCoordenadaX` in interface `Mapeavel`

**Parameters:**

`coordenadaX` - nova coordenada X.

**getCoordenadaY**

```
public int getCoordenadaY()
```

Método da interface de acesso à coordenada Y cadastrada.

**Specified by:**

`getCoordenadaY` in interface `Mapeavel`

**Returns:**

coordenada Y.

**setCoordenadaY**

```
public void setCoordenadaY(int coordenadaY)
```

Método da interface de mdoificação da coordenada Y cadastrada.

**Specified by:**

`setCoordenadaY` in interface `Mapeavel`

**Parameters:**

`coordenadaY` - nova coordenada Y.

**getDescricaoLonga**

```
public java.lang.String getDescricaoLonga()
```

Método de acesso à descrição cadastrada.

**Returns:**

String descrição cadastrada.

**setDescricaoLonga**

```
public void setDescricaoLonga(java.lang.String descricaoLonga)
```

Método de modificação da descrição cadastrada.

**Parameters:**

`descricaoLonga` - nova descrição.

**getNumeros**

```
public int getNumeros()
```

Método de acesso do número cadastrado.

**Returns:**

número cadastrado.

**setNumeros**

```
public void setNumeros(int numeros)
```

Método de modificação do número cadastrado.

**Parameters:**

numeros - novo número.

**getNomeClasse**

```
public abstract java.lang.String getNomeClasse()
```

Método abstrato que retorna o nome da classe.

**Returns:**

String nome da classe.

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componentes

## Class Recebimento

java.lang.Object  
componentes.Cadastravel  
componentes.Ameaca  
componentes.Recebimento

All Implemented Interfaces:  
Mapeavel, java.io.Serializable

public class Recebimento  
extends Ameaca

Classe que representa um evento de Combate. Estende Ameaca por representar uma ameaça aos rebeldes e possui atributos próprios específicos, como o tipo de carga recebida e seu peso.

See Also:  
Serialized Form

### Field Summary

#### Fields

Modifier and Type	Field and Description
private java.lang.String	<b>caminhoImagem</b>
private java.lang.String	<b>carga</b>
private java.lang.String	<b>descricaoCurta</b>
private double	<b>peso</b>

### Constructor Summary

#### Constructors

##### Constructor and Description

**Recebimento**(int coordenadaX, int coordenadaY, java.lang.String descricaoLonga, int numeros, java.lang.String gravidade, java.lang.String carga, double peso)  
Construtor da classe.

## Method Summary

All Methods

Instance Methods

Concrete Methods

Modifier and Type	Method and Description
java.lang.String	<b>getCaminhoImagem()</b> Método da interface de acesso ao caminho da imagem de Recebimento.
java.lang.String	<b>getCarga()</b> Método de acesso ao tipo de carga do recebimento.
java.lang.String	<b>getDescricaoCurta()</b> Método da interface de acesso à descrição genérica da classe.
java.lang.String	<b>getNomeClasse()</b> Método de Cadastravel de acesso ao nome da classe.
double	<b>getPeso()</b> Método de acesso ao peso da carga.
void	<b>setCarga</b> (java.lang.String carga) Método de modificação da carga do recebimento.
void	<b>setPeso</b> (double peso) Método de modificação ao peso da carga.

### Methods inherited from class componentes.Ameaca

getGravidade, setGravidade

### Methods inherited from class componentes.Cadastravel

getCoordenadaX, getCoordenadaY, getDescricaoLonga, getNumeros, setCoordenadaX, setCoordenadaY, setDescricaoLonga, setNumeros

### Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

## Field Detail

carga

private java.lang.String carga

peso

```
private double peso
```

#### **caminhoImagem**

```
private final java.lang.String caminhoImagem
```

#### **descricaoCurta**

```
private final java.lang.String descricaoCurta
```

### ***Constructor Detail***

#### **Recebimento**

```
public Recebimento(int coordenadaX,  
                   int coordenadaY,  
                   java.lang.String descricaoLonga,  
                   int numeros,  
                   java.lang.String gravidade,  
                   java.lang.String carga,  
                   double peso)
```

Construtor da classe. Recebe como parâmetros os atributos do objeto e realiza a atribuição. Acrescenta o caminho do ícone que representa a classe e a descrição da ameaça, atributos constantes compartilhados por todas as instancias da classe.

#### **Parameters:**

coordenadaX - coordenada X no mapa.

coordenadaY - coordenada Y no mapa.

descricaoLonga - descrição específica da ameaça.

numeros - quantidade de representantes da ameaça.

gravidade - gravidade da ameaça.

carga - tipo de carga recebida.

peso - peso da carga.

### ***Method Detail***

#### **getCarga**

```
public java.lang.String getCarga()
```

Método de acesso ao tipo de carga do recebimento.



**Returns:**

String tipo de carga.

**setCarga**

```
public void setCarga(java.lang.String carga)
```

Método de modificação da carga do recebimento.

**Parameters:**

carga - nova carga.

**getPeso**

```
public double getPeso()
```

Método de acesso ao peso da carga.

**Returns:**

double peso.

**setPeso**

```
public void setPeso(double peso)
```

Método de modificação ao peso da carga.

**Parameters:**

peso - novo peso.

**getCaminhoImagem**

```
public java.lang.String getCaminhoImagem()
```

Método da interface de acesso ao caminho da imagem de Recebimento.

**Returns:**

String caminho da imagem.

**getDescricaoCurta**

```
public java.lang.String getDescricaoCurta()
```

Método da interface de acesso à descrição genérica da classe.

**Returns:**

String descrição genérica de recebimento de carga.

**getNomeClasse**

```
public java.lang.String getNomeClasse()
```

Método de `Cadastravel` de acesso ao nome da classe.

**Specified by:**

`getNomeClasse` in class `Cadastravel`

**Returns:**

`String` nome da classe.

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## Class Rebeldes

[java.lang.Object](#)[componentes.Cadastravel](#)[componentes.Rebeldes](#)

### All Implemented Interfaces:

[Mapeavel](#), [java.io.Serializable](#)

```
public class Rebeldes
```

```
extends Cadastravel
```

Classe que representa os grupos rebeldes. Estende [Cadastravel](#), sendo cadastrável no sistema e representável no mapa, e possui sua própria imagem.

### See Also:

[Serialized Form](#)

### Field Summary

#### Fields

Modifier and Type	Field and Description
private java.lang.String	<a href="#">caminhoImagem</a>
private java.lang.String	<a href="#">descricaoCurta</a>

### Constructor Summary

#### Constructors

##### Constructor and Description

[Rebeldes](#)(int coordenadaX, int coordenadaY, java.lang.String descricaoLonga, int numeros)  
Construtor da classe.

### Method Summary

#### All Methods    Instance Methods    Concrete Methods

Modifier and Type	Method and Description
-------------------	------------------------

java.lang.String	<b>getCaminhoImagem()</b>
	Método da interface de acesso ao caminho da imagem de grupo rebelde.
java.lang.String	<b>getDescricaoCurta()</b>
	Método da interface de acesso à descrição genérica da classe.
java.lang.String	<b>getNomeClasse()</b>
	Método de Cadastravel de acesso ao nome da classe.

### Methods inherited from class componentes.Cadastravel

getCoordenadaX, getCoordenadaY, getDescricaoLonga, getNumeros, setCoordenadaX, setCoordenadaY, setDescricaoLonga, setNumeros

### Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

## Field Detail

### caminhoImagem

```
private final java.lang.String caminhoImagem
```

### descricaoCurta

```
private final java.lang.String descricaoCurta
```

## Constructor Detail

### Rebeldes

```
public Rebeldes(int coordenadaX,  
                int coordenadaY,  
                java.lang.String descricaoLonga,  
                int numeros)
```

Construtor da classe. Recebe como parâmetros os atributos do objeto e realiza a atribuição. Acrescenta o caminho do ícone que representa a classe e a descrição da ameaça, atributos constantes compartilhados por todas as instancias da classe

#### Parameters:

coordenadaX - coordenada X no mapa.

coordenadaY - coordenada Y no mapa.

descricaoLonga - descrição específica do grupo rebelde.

numeros - quantidade de representantes do grupo.

## Method Detail

### getNomeClasse

```
public java.lang.String getNomeClasse()
```

Método de `Cadastravel` de acesso ao nome da classe.

**Specified by:**

`getNomeClasse` in class `Cadastravel`

**Returns:**

String nome da classe.

### getCaminhoImagem

```
public java.lang.String getCaminhoImagem()
```

Método da interface de acesso ao caminho da imagem de grupo rebelde.

**Returns:**

String caminho da imagem.

### getDescricaoCurta

```
public java.lang.String getDescricaoCurta()
```

Método da interface de acesso à descrição genérica da classe.

**Returns:**

String descrição genérica de rebeldes.

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componentes

## Class Patrulha

java.lang.Object  
  componentes.Cadastravel  
    componentes.Ameaca  
      componentes.Patrulha

**All Implemented Interfaces:**  
[Mapeavel](#), [java.io.Serializable](#)

public class **Patrulha**  
extends [Ameaca](#)

Representa um evento de patrulha. Estende [Ameaca](#) por representar uma ameaça aos rebeldes e possui atributos próprios específicos, como seu tipo.

**See Also:**  
[Serialized Form](#)

### Field Summary

#### Fields

Modifier and Type	Field and Description
private java.lang.String	<a href="#">caminhoImagem</a>
private java.lang.String	<a href="#">descricaoCurta</a>
private java.lang.String	<a href="#">tipo</a>

### Constructor Summary

#### Constructors

Constructor and Description
<b><a href="#">Patrulha</a></b> (int coordenadaX, int coordenadaY, java.lang.String descricaoLonga, int numeros, java.lang.String gravidade, java.lang.String tipo) Construtor da classe.

### Method Summary

**All Methods    Instance Methods    Concrete Methods**

Modifier and Type	Method and Description
java.lang.String	<b>getCaminhoImagem()</b> Método da interface de acesso ao caminho da imagem de Patrulha.
java.lang.String	<b>getDescricaoCurta()</b> Método da interface de acesso à descrição genérica da classe.
java.lang.String	<b>getNomeClasse()</b> Método de Cadastravel de acesso ao nome da classe.
java.lang.String	<b>getTipo()</b> Método de acesso ao tipo da patrulha.
void	<b>setTipo(java.lang.String tipo)</b> Método de modificação do tipo da patrulha.

**Methods inherited from class componentes.Ameaca**

getGravidade, setGravidade

**Methods inherited from class componentes.Cadastravel**

getCoordenadaX, getCoordenadaY, getDescricaoLonga, getNumeros, setCoordenadaX, setCoordenadaY, setDescricaoLonga, setNumeros

**Methods inherited from class java.lang.Object**

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

## Field Detail

### caminhoImagem

```
private final java.lang.String caminhoImagem
```

### tipo

```
private java.lang.String tipo
```

### descricaoCurta

```
private final java.lang.String descricaoCurta
```

## Constructor Detail

### Patrulha

```
public Patrulha(int coordenadaX,  
                int coordenadaY,  
                java.lang.String descricaoLonga,  
                int numeros,  
                java.lang.String gravidade,  
                java.lang.String tipo)
```

Construtor da classe. Recebe como parâmetros os atributos do objeto e realiza a atribuição. Acrescenta o caminho do ícone que representa a classe e a descrição da ameaça, atributos constantes compartilhados por todas as instancias da classe.

#### Parameters:

coordenadaX - coordenada X no mapa.

coordenadaY - coordenada Y no mapa.

descricaoLonga - descrição específica da ameaça.

numeros - quantidade de representantes da ameaça.

gravidade - gravidade da ameaça.

tipo - tipo da patrulha.

## Method Detail

### getTipo



```
public java.lang.String getTipo()
```

Método de acesso ao tipo da patrulha.

**Returns:**

String tipo da patrulha.

**setTipo**

```
public void setTipo(java.lang.String tipo)
```

Método de modificação do tipo da patrulha.

**Parameters:**

tipo - novo tipo.

**getCaminhoImagem**

```
public java.lang.String getCaminhoImagem()
```

Método da interface de acesso ao caminho da imagem de Patrulha.

**Returns:**

String caminho da imagem.

**getDescricaoCurta**

```
public java.lang.String getDescricaoCurta()
```

Método da interface de acesso à descrição genérica da classe.

**Returns:**

String descrição genérica de patrulha.

**getNomeClasse**

```
public java.lang.String getNomeClasse()
```

Método de `Cadastravel` de acesso ao nome da classe.

**Specified by:**

`getNomeClasse` in class `Cadastravel`

**Returns:**

String nome da classe.

SUMMARY: NESTED | FIELD | CONSTR | METHOD

DETAIL: FIELD | CONSTR | METHOD

componentes

# Class Marcha

```
java.lang.Object
  componentes.Cadastravel
    componentes.Ameaca
      componentes.Marcha
```

**All Implemented Interfaces:**

Mapeavel, java.io.Serializable

```
public class Marcha
  extends Ameaca
```

Classe que representa uma operação de marcha. Estende Ameaca por representar uma ameaça aos rebeldes e possui atributos próprios específicos, como o tamanho da marcha.

**See Also:**

Serialized Form

## Field Summary

**Fields**

Modifier and Type	Field and Description
private java.lang.String	<b>caminhoImagem</b>
private java.lang.String	<b>descricaoCurta</b>
private double	<b>tamanhoMarcha</b>

## Constructor Summary

**Constructors**

**Constructor and Description**

**Marcha**(int coordenadaX, int coordenadaY, java.lang.String descricaoLonga, int numeros, java.lang.String gravidade, double tamanhoMarcha)  
 Construtor da classe.

## Method Summary

All Methods

Instance Methods

Concrete Methods

Modifier and Type	Method and Description
java.lang.String	<b>getCaminhoImagem()</b> Método da interface de acesso ao caminho da imagem de Combate.
java.lang.String	<b>getDescricaoCurta()</b> Método da interface de acesso à descrição genérica da classe.
java.lang.String	<b>getNomeClasse()</b> Método de Cadastravel de acesso ao nome da classe.
double	<b>getTamanhoMarcha()</b> Método de acesso ao tamanho da marcha.
void	<b>setTamanhoMarcha(double tamanhoMarcha)</b> Método de modificação do tamanho da marcha.

Methods inherited from class componentes.Ameaca

getGravidade, setGravidade

Methods inherited from class componentes.Cadastravel

getCoordenadaX, getCoordenadaY, getDescricaoLonga, getNumeros, setCoordenadaX, setCoordenadaY, setDescricaoLonga, setNumeros

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

## Field Detail

### caminhoImagem

```
private final java.lang.String caminhoImagem
```

### descricaoCurta

```
private final java.lang.String descricaoCurta
```

### tamanhoMarcha

```
private double tamanhoMarcha
```

## Constructor Detail

### Marcha

```
public Marcha(int coordenadaX,  
              int coordenadaY,  
              java.lang.String descricaoLonga,  
              int numeros,  
              java.lang.String gravidade,  
              double tamanhoMarcha)
```

Construtor da classe. Recebe como parâmetros os atributos do objeto e realiza a atribuição. Acrescenta o caminho do ícone que representa a classe e a descrição da ameaça, atributos constantes compartilhados por todas as instancias da classe.

#### Parameters:

coordenadaX - coordenada X no mapa.

coordenadaY - coordenada Y no mapa.

descricaoLonga - descrição específica da ameaça.

numeros - quantidade de representantes da ameaça.

gravidade - gravidade da ameaça.

tamanhoMarcha - tamanho da marcha realizada em km.

## Method Detail

### getTamanhoMarcha

```
public double getTamanhoMarcha()
```

Método de acesso ao tamanho da marcha.

**Returns:**

tamanho da marcha em KM.

**setTamanhoMarcha**

```
public void setTamanhoMarcha(double tamanhoMarcha)
```

Método de modificação do tamanho da marcha.

**Parameters:**

tamanhoMarcha - novo tamanho da marcha.

**getCaminhoImagem**

```
public java.lang.String getCaminhoImagem()
```

Método da interface de acesso ao caminho da imagem de Combate.

**Returns:**

String caminho da imagem.

**getDescricaoCurta**

```
public java.lang.String getDescricaoCurta()
```

Método da interface de acesso à descrição genérica da classe.

**Returns:**

String descrição genérica de marcha.

**getNomeClasse**

```
public java.lang.String getNomeClasse()
```

Método de `Cadastravel` de acesso ao nome da classe.

**Specified by:**

`getNomeClasse` in class `Cadastravel`

**Returns:**

String nome da classe.

SUMMARY: NESTED | FIELD | CONSTR | METHOD

DETAIL: FIELD | CONSTR | METHOD

componentes

## Class Combate

```
java.lang.Object
  componentes.Cadastravel
    componentes.Ameaca
      componentes.Combate
```

**All Implemented Interfaces:**

Mapeavel, java.io.Serializable

```
public class Combate
extends Ameaca
```

Classe que representa um evento de Combate. Estende Ameaca por representar uma ameaça aos rebeldes e possui atributos próprios específicos, como a quantidade de aliados no comabte e sua situação geral.

**See Also:**

Serialized Form

### Field Summary

#### Fields

Modifier and Type	Field and Description
private java.lang.String	<b>caminhoImagem</b>
private java.lang.String	<b>descricaoCurta</b>
private int	<b>quantidadeAliados</b>
private java.lang.String	<b>situacaoGeral</b>

### Constructor Summary

#### Constructors

##### Constructor and Description

**Combate**(int coordenadaX, int coordenadaY, java.lang.String descricaoLonga, int numeros, java.lang.String gravidade, int quantidadeAliados, java.lang.String situacaoGeral)  
 Construtor da classe.



## Method Summary

All Methods	Instance Methods	Concrete Methods
Modifier and Type	Method and Description	
java.lang.String	<b>getCaminhoImagem()</b>	Método da interface de acesso ao caminho da imagem de Combate.
java.lang.String	<b>getDescricaoCurta()</b>	Método da interface de acesso à descrição genérica da classe.
java.lang.String	<b>getNomeClasse()</b>	Método de <code>Cadastravel</code> de acesso ao nome da classe.
int	<b>getQuantidadeAliados()</b>	Método de acesso à quantidade de aliados.
java.lang.String	<b>getSituacaoGeral()</b>	Método de acesso à situação geral do combate.
void	<b>setQuantidadeAliados(int quantidadeAliados)</b>	Método de modificação da quantidade de aliados.
void	<b>setSituacaoGeral(java.lang.String situacaoGeral)</b>	Método de modificação da situação geral do combate.

### Methods inherited from class componentes.Ameaca

getGravidade, setGravidade

### Methods inherited from class componentes.Cadastravel

getCoordenadaX, getCoordenadaY, getDescricaoLonga, getNumeros, setCoordenadaX, setCoordenadaY, setDescricaoLonga, setNumeros

### Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

## Field Detail

### quantidadeAliados

private int quantidadeAliados

### situacaoGeral

```
private java.lang.String situacaoGeral
```

#### **caminhoImagem**

```
private final java.lang.String caminhoImagem
```

#### **descricaoCurta**

```
private final java.lang.String descricaoCurta
```

### ***Constructor Detail***

#### **Combate**

```
public Combate(int coordenadaX,  
               int coordenadaY,  
               java.lang.String descricaoLonga,  
               int numeros,  
               java.lang.String gravidade,  
               int quantidadeAliados,  
               java.lang.String situacaoGeral)
```

Construtor da classe. Recebe como parâmetros os atributos do objeto e realiza a atribuição. Acrescenta o caminho do ícone que representa a classe e a descrição da ameaça, atributos constantes compartilhados por todas as instancias da classe.

##### **Parameters:**

coordenadaX - coordenada X no mapa.

coordenadaY - coordenada Y no mapa.

descricaoLonga - descrição específica da ameaça.

numeros - quantidade de representantes da ameaça.

gravidade - gravidade da ameaça.

quantidadeAliados - quantidade de aliados no combate.

situacaoGeral - situação geral do combate.

### ***Method Detail***

#### **getQuantidadeAliados**

```
public int getQuantidadeAliados()
```

Método de acesso à quantidade de aliados.

**Returns:**

int quantidade de aliados.

**setQuantidadeAliados**

```
public void setQuantidadeAliados(int quantidadeAliados)
```

Método de modificação da quantidade de aliados.

**Parameters:**

quantidadeAliados - nova quantidade de aliados.

**getSituacaoGeral**

```
public java.lang.String getSituacaoGeral()
```

Método de acesso à situação geral do combate.

**Returns:**

String situação geral.

**setSituacaoGeral**

```
public void setSituacaoGeral(java.lang.String situacaoGeral)
```

Método de modificação da situação geral do combate.

**Parameters:**

situacaoGeral - nova situação geral.

**getCaminhoImagem**

```
public java.lang.String getCaminhoImagem()
```

Método da interface de acesso ao caminho da imagem de Combate.

**Returns:**

String caminho da imagem.

**getDescricaoCurta**

```
public java.lang.String getDescricaoCurta()
```

Método da interface de acesso à descrição genérica da classe.

**Returns:**

String descrição genérica de combate.

**getNomeClasse**

```
public java.lang.String getNomeClasse()
```

Método de `Cadastravel` de acesso ao nome da classe.

**Specified by:**

`getNomeClasse` in class `Cadastravel`

**Returns:**

`String` nome da classe.

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## Class Blitz

```
java.lang.Object
  componentes.Cadastravel
    componentes.Ameaca
      componentes.Blitz
```

### All Implemented Interfaces:

[Mapeavel](#), [java.io.Serializable](#)

```
public class Blitz
  extends Ameaca
```

Classe que representa um evento Blitz. Estende [Ameaca](#) por representar uma ameaça aos rebeldes e possui atributos próprios específicos, como o tipo de veículo da blitz.

### See Also:

[Serialized Form](#)

## Field Summary

### Fields

Modifier and Type	Field and Description
private java.lang.String	<a href="#">caminhoImagem</a>
private java.lang.String	<a href="#">descricaoCurta</a>
private java.lang.String	<a href="#">veiculo</a>

## Constructor Summary

### Constructors

#### Constructor and Description

```
Blitz(int coordenadaX, int coordenadaY, java.lang.String descricaoLonga,
int numeros, java.lang.String gravidade, java.lang.String veiculo)
```

Construtor da classe.

## Method Summary

**All Methods    Instance Methods    Concrete Methods**

Modifier and Type	Method and Description
java.lang.String	<b>getCaminhoImagem()</b> Método de acesso ao caminho da imagem da Blitz.
java.lang.String	<b>getDescricaoCurta()</b> Método de acesso à descrição curta da Blitz.
java.lang.String	<b>getNomeClasse()</b> Método de acesso ao nome da classe.
java.lang.String	<b>getVeiculo()</b> Método de acesso ao veículo da Blitz.
void	<b>setVeiculo</b> (java.lang.String veiculo) Método para modificação do veículo da Blitz.

**Methods inherited from class componentes.Ameaca**

getGravidade, setGravidade

**Methods inherited from class componentes.Cadastravel**

getCoordenadaX, getCoordenadaY, getDescricaoLonga, getNumeros, setCoordenadaX, setCoordenadaY, setDescricaoLonga, setNumeros

**Methods inherited from class java.lang.Object**

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

## Field Detail

### veiculo

```
private java.lang.String veiculo
```

### caminhoImagem

```
private final java.lang.String caminhoImagem
```

### descricaoCurta

```
private final java.lang.String descricaoCurta
```

## Constructor Detail

### Blitz

```
public Blitz(int coordenadaX,  
            int coordenadaY,  
            java.lang.String descricaoLonga,  
            int numeros,  
            java.lang.String gravidade,  
            java.lang.String veiculo)
```

Construtor da classe. Recebe como parâmetros os atributos do objeto e realiza a atribuição. Acrescenta o caminho do ícone que representa a classe e a descrição da ameaça, atributos constantes compartilhados por todas as instancias da classe.

#### Parameters:

coordenadaX - coordenada X no mapa.

coordenadaY - coordenada Y no mapa.

descricaoLonga - descrição específica da ameaça.

numeros - quantidade de representantes da ameaça.

gravidade - gravidade da ameaça.

veiculo - veículos da Blitz.

## Method Detail

### getVeiculo

```
public java.lang.String getVeiculo()
```

Método de acesso ao veículo da Blitz.

**Returns:**

String nome do veículo.

**setVeiculo**

```
public void setVeiculo(java.lang.String veiculo)
```

Método para modificação do veículo da Blitz.

**Parameters:**

veiculo - novo veículo.

**getCaminhoImagem**

```
public java.lang.String getCaminhoImagem()
```

Método de acesso ao caminho da imagem da Blitz.

**Returns:**

String caminho da imagem.

**getDescricaoCurta**

```
public java.lang.String getDescricaoCurta()
```

Método de acesso à descrição curta da Blitz.

**Returns:**

String descrição genérica da classe.

**getNomeClasse**

```
public java.lang.String getNomeClasse()
```

Método de acesso ao nome da classe.

**Specified by:**

`getNomeClasse` in class `Cadastravel`

**Returns:**

String nome da classe.



SUMMARY: NESTED | FIELD | CONSTR | METHOD

DETAIL: FIELD | CONSTR | METHOD

componentes

# Class Ameaca

java.lang.Object  
    componentes.Cadastravel  
        componentes.Ameaca

**All Implemented Interfaces:**

Mapeavel, java.io.Serializable

**Direct Known Subclasses:**

Blitz, Combate, Marcha, Patrulha, Recebimento

public abstract class **Ameaca**  
extends [Cadastravel](#)

Classe abstrata que representa uma ameaça aos rebeldes. Estende [Cadastravel](#) para permitir cadastro no sistema e representação no mapa.

**See Also:**

[Serialized Form](#)

## Field Summary

### Fields

Modifier and Type	Field and Description
private java.lang.String	<a href="#">gravidade</a>

## Constructor Summary

### Constructors

#### Constructor and Description

[Ameaca](#)(int coordenadaX, int coordenadaY, java.lang.String descricaoLonga, int numeros, java.lang.String gravidade)  
Construtor da classe.

## Method Summary

**All Methods    Instance Methods    Concrete Methods****Modifier and Type    Method and Description**

java.lang.String	<b>getGravidade()</b> Método de acesso à gravidade da ameaça.
void	<b>setGravidade</b> (java.lang.String gravidade) Método para modificação da gravidade da ameaça.

**Methods inherited from class componentes.Cadastravel**

getCoordenadaX, getCoordenadaY, getDescricaoLonga, getNomeClasse, getNumeros, setCoordenadaX, setCoordenadaY, setDescricaoLonga, setNumeros

**Methods inherited from class java.lang.Object**

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

**Methods inherited from interface componentes.Mapeavel**

getCaminhoImagem, getDescricaoCurta

**Field Detail****gravidade**

```
private java.lang.String gravidade
```

**Constructor Detail****Ameaca**

```
public Ameaca(int coordenadaX,  
              int coordenadaY,  
              java.lang.String descricaoLonga,  
              int numeros,  
              java.lang.String gravidade)
```

Construtor da classe. Recebe características comuns a todas as ameaças e atribui aos atributos.

**Parameters:**

coordenadaX - coordenada X no mapa.

coordenadaY - coordenada Y no mapa.

descricaoLonga - descrição da ameaça.

numeros - quantidade de representantes da ameaça.  
gravidade - gravidade da ameaça.

## Method Detail

### getGravidade

```
public java.lang.String getGravidade()
```

Método de acesso à gravidade da ameaça.

**Returns:**

String gravidade.

### setGravidade

```
public void setGravidade(java.lang.String gravidade)
```

Método para modificação da gravidade da ameaça.

**Parameters:**

gravidade - nova gravidade da ameaça.

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services

## Class Util

java.lang.Object  
services.Util

```
public final class Util
extends java.lang.Object
```

Classe final responsável por fornecer utilidades ao sistema.

### Constructor Summary

#### Constructors

##### Constructor and Description

[Util\(\)](#)

### Method Summary

#### All Methods    Static Methods    Concrete Methods

##### Modifier and Type

static [Tracker](#)

##### Method and Description

[readFile\(\)](#)

Método responsável por ler o arquivo, a fim de logar no sistema os componentes já cadastrados.

static java.lang.String [readPassword\(\)](#)

Lê o arquivo de senha e retorna para que a tela de ui.Login possa encriptografar.

static void

[writeFile](#)([Tracker](#) tracker)

Método responsável por escrever no arquivo as informações dos objetos, salvando-os.

### Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString,
wait, wait, wait
```

### Constructor Detail

**Util**

```
public Util()
```

**Method Detail****readFile**

```
public static Tracker readFile()
```

Método responsável por ler o arquivo, a fim de logar no sistema os componentes já cadastrados. É chamado no login, quando o usuário é aceito, antes de se iniciar o uso do sistema propriamente.

**Returns:**

Tracker com os componentes cadastrados

**writeFile**

```
public static void writeFile(Tracker tracker)
```

Método responsável por escrever no arquivo as informações dos objetos, salvando-os. É chamado quando o usuário fecha o sistema, garantindo que não haverá a possibilidade de cadastrar dados que não serão salvos.

**Parameters:**

tracker - objeto a ser armazenado.

**readPassword**

```
public static java.lang.String readPassword()
```

Lê o arquivo de senha e retorna para que a tela de ui.Login possa encriptografar.

**Returns:**

String senha lida do arquivo.

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