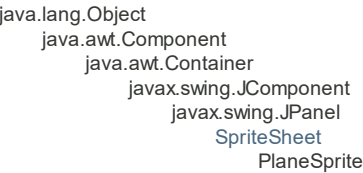


Class PlaneSprite



All Implemented Interfaces:

java.awt.event.ActionListener, java.awt.event.KeyListener, java.awt.event.MouseListener, java.awt.event.MouseMotionListener, java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, java.lang.Runnable, java.util.EventListener, javax.accessibility.Accessible, javax.swing.event.MouseInputListener

```
public class PlaneSprite
extends SpriteSheet
implements java.awt.event.ActionListener, java.lang.Runnable, java.awt.event.KeyListener, javax.swing.event.MouseInputListener
```

This is the PlaneSprite class and will manage the PlaneSprite properties. This class can move the plane, shoot missiles, draw the plane, etc.

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 java.util.List<Missile>	Ammo
boolean	didPlaneFire
private java.awt.image.BufferedImage	img1
private boolean	isPlaneHit
private int	maxAmmo
private boolean	missileFired
java.util.List<Missile>	missiles

private boolean	<code>planeDestroyed</code>
private boolean	<code>planeDown</code>
private boolean	<code>planeLeft</code>
int	<code>planeLife</code>
private boolean	<code>planeRight</code>
private boolean	<code>planeUp</code>
private static java.awt.image.BufferedImage[]	<code>sprites1</code>
private boolean	<code>usingKeyboard</code>
private int	<code>x</code>
private int	<code>y</code>

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

`PlaneSprite()`

This is the constructor for creating a plane instance for the player.

Method Summary

All Methods	Instance Methods	Concrete Methods	Deprecated Methods
Modifier and Type		Method and Description	
void		<code>actionPerformed(java.awt.event.ActionEvent arg0)</code>	Invoke when action is used.
void		<code>addPlaneLife(int x)</code>	This method will add life to the PlaneSprite.
java.util.List<Missile>		<code>ammo()</code>	This method will return a List of the PlaneSprites current ammo.
void		<code>ammoLoad()</code>	This will load 5 shots into the PlaneSprite missile launcher.
boolean		<code>didmissileFired()</code>	
boolean		<code>didPlaneFire()</code>	This will return the boolean for whether or not the plane fired.
void		<code>doDrawing(java.awt.Graphics g)</code>	This method keeps is in charge of drawing the PlaneSprite on the canvas.
java.awt.Rectangle		<code>getBounds()</code>	This will return the bounds of the PlaneSprite used for collision.

java.awt.Rectangle	getBounds2() This method will return the bounds of the plane sprite
int	getH() This will return the height of the PlaneSprite based on the height of the image.
boolean	getKeyboardStatus() This method lets the game know that the user is using the keyboard and flips the PlaneSprite variable.
int	getLife() This method will return the current life of the PlaneSprite
java.awt.image.BufferedImage	getPlane() This will return the current image of the plane.
java.awt.image.BufferedImage[]	getSprites() This method will return all the sprites associated with the PlaneSprite's movement.
int	getW() This method will return the width of the PlaneSprite.
int	getXPosition() This method will return the current x coordinate of the PlaneSprite.
int	getYPosition() This method will return the y coordinate of the PlaneSprite.
boolean	isDead() This will return true if the PlaneSprite life is 0 other wise it will return false.
boolean	isDestroyed() This method will return a boolean for whether or not the PlaneSprite has been destroyed.
void	isHit() This method will lower the PlaneSprite's health if it's been hit.
boolean	isPlaneHit() This method will return whether for not the plane has been hit.
void	keyPressed(java.awt.event.KeyEvent e) This method will check for key being pressed on the keyboard, and using the KeyEvent code it will set the PlaneSprite movement variables.
void	keyReleased(java.awt.event.KeyEvent e) This is used to manage key released events.
void	keyTyped(java.awt.event.KeyEvent e) Deprecated. not in use
private void	loadImage()
void	missileFired(boolean fire)
java.util.List<Missile>	missiles()
void	mouseClicked(java.awt.event.MouseEvent e)
void	mouseDragged(java.awt.event.MouseEvent e) Deprecated. not in use
void	mouseEntered(java.awt.event.MouseEvent e) Deprecated. not in use
void	mouseExited(java.awt.event.MouseEvent e) Deprecated. not in use
void	mouseMoved(java.awt.event.MouseEvent e) This method will manage the mouse movement and allows for a little bit of wiggling in the mouse before moving the PlaneSprite.

void	mousePressed (java.awt.event.MouseEvent e) This method will set the fire to false, this is crucial in the in preventing the PlaneSprite from firing several bullet per frame.
void	mouseReleased (java.awt.event.MouseEvent e) This method will allow the plane to fire a missile on release of the mosue button.
void	moveDown () This method will move the PlaneSprite image on the canvas down on the y plane from it current location by 3.
void	moveLeft () This method will move the PlaneSprite image on the canvas over to the left by 3 on the x plane.
void	moveRight () This method will move the PlaneSprite image on the canvas over to the right by 3 on the x plane.
void	moveUp () This method will move the PlaneSprite iamage on the canvas up by 3 on the y plane.
Missile	projectile () This method is used to remove a missile from the list when the missile is fired.
void	run () Deprecated. not in use
void	setPlaneDestroyed (boolean planeDestroyed) This method will set if the PlaneSprite has been destoryed using a boolean.
void	setPlaneDown (boolean i)
void	setPlaneLeft (boolean i)
void	setPlaneRight (boolean i)
void	setPlaneUp (boolean i)
void	setxPosition (int xPosition) This method is used to set the x coordinate of the PlaneSprite.
void	setyPosition (int yPosition) This method is used to set the y coordinate of the PlaneSprite.

Methods inherited from class **SpriteSheet**

getHeight, getWidth

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, getInheritsPopupMenu, getInputMap, getInputMap, getInputVerifier, getInsets, getInsets, getListeners, getLocation, getMaximumSize, getMinimumSize, getNextFocusableComponent, getPopupLocation, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, 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, 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

Methods inherited from class java.awt.Container

add, 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, 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

sprites1

private static java.awt.image.BufferedImage[] sprites1

maxAmmo

private final int maxAmmo

See Also:

[Constant Field Values](#)

Ammo

private final java.util.List<Missile> Ammo

planeLife

```
public int planeLife
```

```
didPlaneFire
```

```
public boolean didPlaneFire
```

```
missiles
```

```
public java.util.List<Missile> missiles
```

```
planeDestroyed
```

```
private boolean planeDestroyed
```

```
img1
```

```
private java.awt.image.BufferedImage img1
```

```
x
```

```
private int x
```

```
y
```

```
private int y
```

```
planeRight
```

```
private boolean planeRight
```

```
planeLeft
```

```
private boolean planeLeft
```

```
planeUp
```

```
private boolean planeUp
```

```
planeDown
```

```
private boolean planeDown
```

```
missileFired
```

```
private boolean missileFired
```

```
isPlaneHit
```

```
private boolean isPlaneHit
```

```
usingKeyboard
```

```
private boolean usingKeyboard
```

Constructor Detail

PlaneSprite

```
public PlaneSprite()
```

This is the constructor for creating a plane instance for the player.

Method Detail

ammoLoad

```
public void ammoLoad()
```

This will load 5 shots into the PlaneSprite missile launcher.

ammo

```
public java.util.List<Missile> ammo()
```

This method will return a List of the PlaneSprites current ammo.

Returns:

actionPerformed

```
public void actionPerformed(java.awt.event.ActionEvent arg0)
```

Invoke when action is used.

Specified by:

actionPerformed in interface java.awt.event.ActionListener

missiles

```
public java.util.List<Missile> missiles()
```

Returns:

didPlaneFire

```
public boolean didPlaneFire()
```

This will return the boolean for whether or not the plane fired.

Returns:

a boolean for if the plane fired

doDrawing

```
public void doDrawing(java.awt.Graphics g)
```

This method keeps is in charge of drawing the PlaneSprite on the canvas. This method will draw the proper image for the plane movement based on the proper combination.

Parameters:

g - is the canvas for images and sprite to be drawn on.

getBounds

```
public java.awt.Rectangle getBounds()
```

This will return the bounds of the PlaneSprite used for collision.

Overrides:

`getBounds` in class `java.awt.Component`

Returns:

the bounds of the PlaneSprite

getW

```
public int getW()
```

This method will return the width of the PlaneSprite.

Returns:

the width of the PlaneSprite.

getH

```
public int getH()
```

This will return the height of the PlaneSprite based on the height of the image.

Returns:

the height of the PlaneSprite

getPlane

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

This will return the current image of the plane.

Returns:

the image of the sprite.

getSprites

```
public java.awt.image.BufferedImage[] getSprites()
```

This method will return all the sprites associated with the PlaneSprite's movement.

Overrides:

`getSprites` in class `SpriteSheet`

Returns:

a array of all the sprites

getXPosition

```
public int getXPosition()
```

This method will return the current x coordinate of the PlaneSprite.

Returns:

the x cordinate for the PlaneSprite

setXPosition

```
public void setXPosition(int xPosition)
```

This method is used to set the x coordinate of the PlaneSprite.

Parameters:

`xPosition` - the x coordinate you want to for the PlaneSprite.

getPosition

```
public int getPosition()
```

This method will return the y coordinate of the PlaneSprite.

Returns:

the x coordinate of PlaneSprite

setPosition

```
public void setPosition(int yPosition)
```

This method is used to set the y coordinate of the PlaneSprite.

Parameters:

yPosition - the y coordinate you want to set for the PlaneSprite.

isDestroyed

```
public boolean isDestroyed()
```

This method will return a boolean for whether or not the PlaneSprite has been destroyed.

Returns:

a boolean for if the PlaneSprite has been destroyed.

setPlaneDestroyed

```
public void setPlaneDestroyed(boolean planeDestroyed)
```

This method will set if the PlaneSprite has been destroyed using a boolean.

Parameters:

planeDestroyed - a boolean for whether or not the plane is destroyed

keyPressed

```
public void keyPressed(java.awt.event.KeyEvent e)
```

This method will check for key being pressed on the keyboard, and using the KeyEvent code it will set the PlaneSprite movement variables.

Specified by:

keyPressed in interface java.awt.event.KeyListener

Parameters:

e - the key that was pressed.

keyReleased

```
public void keyReleased(java.awt.event.KeyEvent e)
```

This is used to manage key released events. This will reset the PlaneSprite variables after the key pressed event.

Specified by:

keyReleased in interface java.awt.event.KeyListener

Parameters:

e - the key released.

keyTyped

```
public void keyTyped(java.awt.event.KeyEvent e)
```

Deprecated. *not in use*

Abstract method -- Inherited from Abstract Class

Specified by:

keyTyped in interface `java.awt.event.KeyListener`

setPlaneDown

```
public void setPlaneDown(boolean i)
```

Parameters:

i -

setPlaneUp

```
public void setPlaneUp(boolean i)
```

Parameters:

i -

setPlaneLeft

```
public void setPlaneLeft(boolean i)
```

Parameters:

i -

setPlaneRight

```
public void setPlaneRight(boolean i)
```

Parameters:

i -

loadImage

```
private void loadImage()
```

missileFired

```
public void missileFired(boolean fire)
```

Parameters:

fire -

didmissileFired

```
public boolean didmissileFired()
```

Returns:

mouseClicked

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

Specified by:

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

Parameters:

e -

mouseDragged

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

Deprecated. *not in use*

Abstract method -- Inherited from Abstract Class

Specified by:

mouseDragged in interface java.awt.event.MouseMotionListener

mouseEntered

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

Deprecated. *not in use*

Abstract method -- Inherited from Abstract Class

Specified by:

mouseEntered in interface java.awt.event.MouseListener

mouseExited

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

Deprecated. *not in use*

Abstract method -- Inherited from Abstract Class

Specified by:

mouseExited in interface java.awt.event.MouseListener

mouseMoved

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

This method will manage the mouse movement and allows for a little bit of wiggling in the mouse before moving the PlaneSprite.

Specified by:

mouseMoved in interface java.awt.event.MouseMotionListener

Parameters:

e - the MouseEvent for being moved.

mousePressed

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

This method will set the fire to false, this is crucial in the preventing the PlaneSprite from firing several bullet per frame.

Specified by:

mousePressed in interface java.awt.event.MouseListener

Parameters:

e - the MouseEvent for being pressed.

getKeyboardStatus

```
public boolean getKeyboardStatus()
```

This method lets the game know that the user is using the keyboard and flips the PlaneSprite variable.

Returns:

a boolean for if the keyboard is in use.

mouseReleased

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

This method will allow the plane to fire a missile on release of the mouse button.

Specified by:

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

Parameters:

e - the `MouseEvent` for mousebutton released.

moveDown

```
public void moveDown()
```

This method will move the `PlaneSprite` image on the canvas down on the y plane from its current location by 3.

moveLeft

```
public void moveLeft()
```

This method will move the `PlaneSprite` image on the canvas over to the left by 3 on the x plane.

moveRight

```
public void moveRight()
```

This method will move the `PlaneSprite` image on the canvas over to the right by 3 on the x plane.

moveUp

```
public void moveUp()
```

This method will move the `PlaneSprite` image on the canvas up by 3 on the y plane.

projectile

```
public Missile projectile()
```

This method is used to remove a missile from the list when the missile is fired.

Returns:

the missile from the ammo list that was just "fired".

run

```
public void run()
```

Deprecated. *not in use*

Abstract method -- Inherited from Abstract Class

Specified by:

run in interface `java.lang.Runnable`

isPlaneHit

```
public boolean isPlaneHit()
```

This method will return whether or not the plane has been hit.

Returns:

a boolean of the status of if the plane has been hit.

isHit

```
public void isHit()
```

This method will lower the PlaneSprite's health if it's been hit.

getLife

```
public int getLife()
```

This method will return the current life of the PlaneSprite

Returns:

the current life of the PlaneSprite

isDead

```
public boolean isDead()
```

This will return true if the PlaneSprite life is 0 other wise it will return false.

Returns:

whether or not the plane is dead

addPlaneLife

```
public void addPlaneLife(int x)
```

This method will add life to the PlaneSprite.

Parameters:

x - this is the number of live you want to add to the PlaneSprite.

getBounds2

```
public java.awt.Rectangle getBounds2()
```

This method will return the bounds of the plane sprite

Returns:

the bounds of the planesprite

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