| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/ContextualRenderedImageFactory.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PREV CLASS   [**NEXT CLASS**](http://docs.google.com/java/awt/image/renderable/ParameterBlock.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/image/renderable/ContextualRenderedImageFactory.html)    [**NO FRAMES**](http://docs.google.com/ContextualRenderedImageFactory.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | CONSTR | [METHOD](#3znysh7) | DETAIL: FIELD | CONSTR | [METHOD](#tyjcwt) |

## **java.awt.image.renderable**

Interface ContextualRenderedImageFactory

**All Superinterfaces:** [RenderedImageFactory](http://docs.google.com/java/awt/image/renderable/RenderedImageFactory.html)

public interface **ContextualRenderedImageFactory**extends [RenderedImageFactory](http://docs.google.com/java/awt/image/renderable/RenderedImageFactory.html)

ContextualRenderedImageFactory provides an interface for the functionality that may differ between instances of RenderableImageOp. Thus different operations on RenderableImages may be performed by a single class such as RenderedImageOp through the use of multiple instances of ContextualRenderedImageFactory. The name ContextualRenderedImageFactory is commonly shortened to "CRIF."

All operations that are to be used in a rendering-independent chain must implement ContextualRenderedImageFactory.

Classes that implement this interface must provide a constructor with no arguments.

| **Method Summary** | |
| --- | --- |
| [RenderedImage](http://docs.google.com/java/awt/image/RenderedImage.html) | [**create**](http://docs.google.com/java/awt/image/renderable/ContextualRenderedImageFactory.html#create(java.awt.image.renderable.RenderContext,%20java.awt.image.renderable.ParameterBlock))([RenderContext](http://docs.google.com/java/awt/image/renderable/RenderContext.html) renderContext, [ParameterBlock](http://docs.google.com/java/awt/image/renderable/ParameterBlock.html) paramBlock)            Creates a rendering, given a RenderContext and a ParameterBlock containing the operation's sources and parameters. |
| [Rectangle2D](http://docs.google.com/java/awt/geom/Rectangle2D.html) | [**getBounds2D**](http://docs.google.com/java/awt/image/renderable/ContextualRenderedImageFactory.html#getBounds2D(java.awt.image.renderable.ParameterBlock))([ParameterBlock](http://docs.google.com/java/awt/image/renderable/ParameterBlock.html) paramBlock)            Returns the bounding box for the output of the operation, performed on a given set of sources, in rendering-independent space. |
| [Object](http://docs.google.com/java/lang/Object.html) | [**getProperty**](http://docs.google.com/java/awt/image/renderable/ContextualRenderedImageFactory.html#getProperty(java.awt.image.renderable.ParameterBlock,%20java.lang.String))([ParameterBlock](http://docs.google.com/java/awt/image/renderable/ParameterBlock.html) paramBlock, [String](http://docs.google.com/java/lang/String.html) name)            Gets the appropriate instance of the property specified by the name parameter. |
| [String](http://docs.google.com/java/lang/String.html)[] | [**getPropertyNames**](http://docs.google.com/java/awt/image/renderable/ContextualRenderedImageFactory.html#getPropertyNames())()            Returns a list of names recognized by getProperty. |
| boolean | [**isDynamic**](http://docs.google.com/java/awt/image/renderable/ContextualRenderedImageFactory.html#isDynamic())()            Returns true if successive renderings (that is, calls to create(RenderContext, ParameterBlock)) with the same arguments may produce different results. |
| [RenderContext](http://docs.google.com/java/awt/image/renderable/RenderContext.html) | [**mapRenderContext**](http://docs.google.com/java/awt/image/renderable/ContextualRenderedImageFactory.html#mapRenderContext(int,%20java.awt.image.renderable.RenderContext,%20java.awt.image.renderable.ParameterBlock,%20java.awt.image.renderable.RenderableImage))(int i, [RenderContext](http://docs.google.com/java/awt/image/renderable/RenderContext.html) renderContext, [ParameterBlock](http://docs.google.com/java/awt/image/renderable/ParameterBlock.html) paramBlock, [RenderableImage](http://docs.google.com/java/awt/image/renderable/RenderableImage.html) image)            Maps the operation's output RenderContext into a RenderContext for each of the operation's sources. |

| **Methods inherited from interface java.awt.image.renderable.**[**RenderedImageFactory**](http://docs.google.com/java/awt/image/renderable/RenderedImageFactory.html) |
| --- |
| [create](http://docs.google.com/java/awt/image/renderable/RenderedImageFactory.html#create(java.awt.image.renderable.ParameterBlock,%20java.awt.RenderingHints)) |

| **Method Detail** |
| --- |

### mapRenderContext

[RenderContext](http://docs.google.com/java/awt/image/renderable/RenderContext.html) **mapRenderContext**(int i,  
 [RenderContext](http://docs.google.com/java/awt/image/renderable/RenderContext.html) renderContext,  
 [ParameterBlock](http://docs.google.com/java/awt/image/renderable/ParameterBlock.html) paramBlock,  
 [RenderableImage](http://docs.google.com/java/awt/image/renderable/RenderableImage.html) image)

Maps the operation's output RenderContext into a RenderContext for each of the operation's sources. This is useful for operations that can be expressed in whole or in part simply as alterations in the RenderContext, such as an affine mapping, or operations that wish to obtain lower quality renderings of their sources in order to save processing effort or transmission bandwith. Some operations, such as blur, can also use this mechanism to avoid obtaining sources of higher quality than necessary.

**Parameters:**i - the index of the source image.renderContext - the RenderContext being applied to the operation.paramBlock - a ParameterBlock containing the operation's sources and parameters.image - the RenderableImage being rendered. **Returns:**a RenderContext for the source at the specified index of the parameters Vector contained in the specified ParameterBlock.

### create

[RenderedImage](http://docs.google.com/java/awt/image/RenderedImage.html) **create**([RenderContext](http://docs.google.com/java/awt/image/renderable/RenderContext.html) renderContext,  
 [ParameterBlock](http://docs.google.com/java/awt/image/renderable/ParameterBlock.html) paramBlock)

Creates a rendering, given a RenderContext and a ParameterBlock containing the operation's sources and parameters. The output is a RenderedImage that takes the RenderContext into account to determine its dimensions and placement on the image plane. This method houses the "intelligence" that allows a rendering-independent operation to adapt to a specific RenderContext.

**Parameters:**renderContext - The RenderContext specifying the renderingparamBlock - a ParameterBlock containing the operation's sources and parameters **Returns:**a RenderedImage from the sources and parameters in the specified ParameterBlock and according to the rendering instructions in the specified RenderContext.

### getBounds2D

[Rectangle2D](http://docs.google.com/java/awt/geom/Rectangle2D.html) **getBounds2D**([ParameterBlock](http://docs.google.com/java/awt/image/renderable/ParameterBlock.html) paramBlock)

Returns the bounding box for the output of the operation, performed on a given set of sources, in rendering-independent space. The bounds are returned as a Rectangle2D, that is, an axis-aligned rectangle with floating-point corner coordinates.

**Parameters:**paramBlock - a ParameterBlock containing the operation's sources and parameters. **Returns:**a Rectangle2D specifying the rendering-independent bounding box of the output.

### getProperty

[Object](http://docs.google.com/java/lang/Object.html) **getProperty**([ParameterBlock](http://docs.google.com/java/awt/image/renderable/ParameterBlock.html) paramBlock,  
 [String](http://docs.google.com/java/lang/String.html) name)

Gets the appropriate instance of the property specified by the name parameter. This method must determine which instance of a property to return when there are multiple sources that each specify the property.

**Parameters:**paramBlock - a ParameterBlock containing the operation's sources and parameters.name - a String naming the desired property. **Returns:**an object reference to the value of the property requested.

### getPropertyNames

[String](http://docs.google.com/java/lang/String.html)[] **getPropertyNames**()

Returns a list of names recognized by getProperty.

**Returns:**the list of property names.

### isDynamic

boolean **isDynamic**()

Returns true if successive renderings (that is, calls to create(RenderContext, ParameterBlock)) with the same arguments may produce different results. This method may be used to determine whether an existing rendering may be cached and reused. It is always safe to return true.

**Returns:**true if successive renderings with the same arguments might produce different results; false otherwise.

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/ContextualRenderedImageFactory.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PREV CLASS   [**NEXT CLASS**](http://docs.google.com/java/awt/image/renderable/ParameterBlock.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/image/renderable/ContextualRenderedImageFactory.html)    [**NO FRAMES**](http://docs.google.com/ContextualRenderedImageFactory.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
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[Submit a bug or feature](http://bugs.sun.com/services/bugreport/index.jsp)

For further API reference and developer documentation, see [Java SE Developer Documentation](http://docs.google.com/webnotes/devdocs-vs-specs.html). That documentation contains more detailed, developer-targeted descriptions, with conceptual overviews, definitions of terms, workarounds, and working code examples.

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