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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Package | Class | [**Tree**](http://docs.google.com/ch/aplu/turtle/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | **Index** | [**Help**](http://docs.google.com/help-doc.html) | | | |  |
| PREV   NEXT | [**FRAMES**](http://docs.google.com/index.html)    [**NO FRAMES**](http://docs.google.com/index-all.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

[A](#1fob9te) [B](#3znysh7) [C](#2et92p0) [D](#tyjcwt) [F](#3dy6vkm) [G](#1t3h5sf) [H](#4d34og8) [I](#2s8eyo1) [L](#17dp8vu) [P](#3rdcrjn) [R](#26in1rg) [S](#lnxbz9) [T](#35nkun2) [W](#1ksv4uv)

## **A**

[**add(Turtle)**](http://docs.google.com/ch/aplu/turtle/Playground.html#add(ch.aplu.turtle.Turtle)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Adds a new Turtle to the Playground.

## **B**

[**back(double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#back(double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Same as bk(double distance). [**bk(double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#bk(double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Moves the Turtle backwards. [**blitToOffscreenBuffer()**](http://docs.google.com/ch/aplu/turtle/Playground.html#blitToOffscreenBuffer()) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Draws the whole canvas and turtle buffers into the offscreen buffer. [**blitToOffscreenBuffer(Image)**](http://docs.google.com/ch/aplu/turtle/Playground.html#blitToOffscreenBuffer(java.awt.Image)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Draws an image into the offscreen buffer. [**blitToOffscreenBuffer(Image, int, int, int, int)**](http://docs.google.com/ch/aplu/turtle/Playground.html#blitToOffscreenBuffer(java.awt.Image,%20int,%20int,%20int,%20int)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Draws part (a rectangle defined by the parameters) of an image into the offscreen buffer. [**blitToOffscreenBuffer(int, int, int, int)**](http://docs.google.com/ch/aplu/turtle/Playground.html#blitToOffscreenBuffer(int,%20int,%20int,%20int)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Draws part of canvas and turtle buffers into the offscreen buffer, according to the rectangle definded by the parameters. [**blitToOffscreenBuffer(Rectangle)**](http://docs.google.com/ch/aplu/turtle/Playground.html#blitToOffscreenBuffer(java.awt.Rectangle)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Draws part of canvas and turtle buffers into the offscreen buffer, according to the given rectangle.

## **C**

[**calcTopLeftCorner(double, double)**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html#calcTopLeftCorner(double,%20double)) - Method in class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html) Compute the top left corner of the Turtle image (dependent on the specified x- and y-coordinate and the image width and height. [**calcTopLeftCorner(Point2D.Double)**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html#calcTopLeftCorner(java.awt.geom.Point2D.Double)) - Method in class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html) Compute the top left corner of the Turtle image (dependent on the specified point p and the image width and height. [**calcTopLeftCornerX(double)**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html#calcTopLeftCornerX(double)) - Method in class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html) Compute the x-coordinate of the top left corner of the Turtle image (it depends on the specified x-coordinate and the image width). [**calcTopLeftCornerY(double)**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html#calcTopLeftCornerY(double)) - Method in class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html) Compute the y-coordinate of the top left corner of the Turtle image (it depends on the specified y-coordinate and the image height). [**ch.aplu.turtle**](http://docs.google.com/ch/aplu/turtle/package-summary.html) - package ch.aplu.turtleThe **Java Turtle Package** provides functionality for LOGO-like Java-Programs (including multiple turtles). [**clean()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#clean()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Clears away all that was painted in some way by a turtle (such as lines, fillings, text, stamps etc.) [**clear()**](http://docs.google.com/ch/aplu/turtle/Playground.html#clear()) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Clears the canvas (i.e. the buffer where all turtle lines are drawn). [**clear(Graphics)**](http://docs.google.com/ch/aplu/turtle/Playground.html#clear(java.awt.Graphics)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Clears the buffer with the given Graphics. [**clearClipTurtle(Turtle)**](http://docs.google.com/ch/aplu/turtle/Playground.html#clearClipTurtle(ch.aplu.turtle.Turtle)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) This method is called when the given Turtle is in clip mode. [**clearClipTurtle(Turtle, Image)**](http://docs.google.com/ch/aplu/turtle/Playground.html#clearClipTurtle(ch.aplu.turtle.Turtle,%20java.awt.Image)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Here the actual clearing of a Turtle in clip mode from the given image is performed. [**clearTurtle(Turtle)**](http://docs.google.com/ch/aplu/turtle/Playground.html#clearTurtle(ch.aplu.turtle.Turtle)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Removes the image of the given turtle from the turtle buffer. [**clearTurtles()**](http://docs.google.com/ch/aplu/turtle/Playground.html#clearTurtles()) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Removes the image of all turtles from the turtle buffer. [**clearWrapTurtle(Turtle)**](http://docs.google.com/ch/aplu/turtle/Playground.html#clearWrapTurtle(ch.aplu.turtle.Turtle)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) This method is called when the given Turtle is in wrap mode. [**clearWrapTurtle(Turtle, Image)**](http://docs.google.com/ch/aplu/turtle/Playground.html#clearWrapTurtle(ch.aplu.turtle.Turtle,%20java.awt.Image)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Here the actual clearing of a Turtle in wrap mode from the given image is performed. [**CLIP**](http://docs.google.com/ch/aplu/turtle/Turtle.html#CLIP) - Static variable in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Represents clip mode. [**clip()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#clip()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Set the turtle to clip-mode. [**clipLineTo(double, double)**](http://docs.google.com/ch/aplu/turtle/LineRenderer.html#clipLineTo(double,%20double)) - Method in class ch.aplu.turtle.[LineRenderer](http://docs.google.com/ch/aplu/turtle/LineRenderer.html) Does the actual painting for clip mode. [**clipPaint(int, int, Graphics)**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html#clipPaint(int,%20int,%20java.awt.Graphics)) - Method in class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html) Defines how to paint in clip mode (and does it!) [**clips()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#clips()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Tells wheter the turtle is in clip mode. [**countTurtles()**](http://docs.google.com/ch/aplu/turtle/Playground.html#countTurtles()) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Tells how many Turtles are now in this Playground. [**createLineRenderer()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#createLineRenderer()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Create a LineRenderer which is responsible for the correct drawing of the lines. [**createTurtleFactory()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#createTurtleFactory()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Create a TurtleFactory which provides for the Turtle pictures. [**createTurtleRenderer()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#createTurtleRenderer()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Create a TurtleRenderer which is responsible for the correct drawing of the Turtle. [**currentImage()**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html#currentImage()) - Method in class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html) Returns the current image. [**curX()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#curX()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Query the current x-coordinate. [**curY()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#curY()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Query the current y-coordinate.

## **D**

[**DEFAULT\_ANGLE\_RESOLUTION**](http://docs.google.com/ch/aplu/turtle/Turtle.html#DEFAULT_ANGLE_RESOLUTION) - Static variable in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Represents the default angle resolution. [**DEFAULT\_BACKGROUND\_COLOR**](http://docs.google.com/ch/aplu/turtle/Playground.html#DEFAULT_BACKGROUND_COLOR) - Variable in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) The default background color. [**DEFAULT\_EDGE\_BEHAVIOUR**](http://docs.google.com/ch/aplu/turtle/Turtle.html#DEFAULT_EDGE_BEHAVIOUR) - Static variable in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Represents the default edge behaviour (i.e. [**DEFAULT\_FONT**](http://docs.google.com/ch/aplu/turtle/Pen.html#DEFAULT_FONT) - Static variable in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) The default font that is used when drawing Text. [**DEFAULT\_FRAMES\_PER\_SECOND**](http://docs.google.com/ch/aplu/turtle/Turtle.html#DEFAULT_FRAMES_PER_SECOND) - Static variable in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Specifies how many frames per second are used for turtle animation. [**DEFAULT\_PEN\_COLOR**](http://docs.google.com/ch/aplu/turtle/Turtle.html#DEFAULT_PEN_COLOR) - Static variable in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Specifies the default pen color. [**DEFAULT\_SPEED**](http://docs.google.com/ch/aplu/turtle/Turtle.html#DEFAULT_SPEED) - Static variable in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Represents the default speed (velocity). [**DEFAULT\_TURTLE\_COLOR**](http://docs.google.com/ch/aplu/turtle/Turtle.html#DEFAULT_TURTLE_COLOR) - Static variable in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Specifies the default turtle color. [**distance(double, double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#distance(double,%20double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Query the distance from the current location to the given one. [**distance(Point2D.Double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#distance(java.awt.geom.Point2D.Double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Query the distance from the current location to the given one.

## **F**

[**fd(double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#fd(double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Moves the Turtle forwards. [**fill()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#fill()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Fills the region the Turtle is in. [**fill(double, double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#fill(double,%20double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Fills the region with coordinates x and y. [**fill(Turtle)**](http://docs.google.com/ch/aplu/turtle/Playground.html#fill(ch.aplu.turtle.Turtle)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Fills a region. [**forward(double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#forward(double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Same as fd(double distance)

## **G**

[**getAngle()**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html#getAngle()) - Method in class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html)   [**getAngleResolution()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#getAngleResolution()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Get the angle resolution. [**getAvailableFontFamilies()**](http://docs.google.com/ch/aplu/turtle/Pen.html#getAvailableFontFamilies()) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Provides information about the currently available font families (e.g. [**getAvailableFontFamilies()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#getAvailableFontFamilies()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Provides information about all font families (e.g. [**getBounds(Turtle)**](http://docs.google.com/ch/aplu/turtle/Playground.html#getBounds(ch.aplu.turtle.Turtle)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Calculates the bounds of the Turtles picture on the screen. [**getColor()**](http://docs.google.com/ch/aplu/turtle/Pen.html#getColor()) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Query the Pens color. [**getColor()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#getColor()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Query the turtle's current color. [**getDashArray()**](http://docs.google.com/ch/aplu/turtle/Pen.html#getDashArray()) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Query the Pens dash array. [**getDashPhase()**](http://docs.google.com/ch/aplu/turtle/Pen.html#getDashPhase()) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Query the Pens dash phase. [**getEdgeBehaviour()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#getEdgeBehaviour()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Returns the current edge behaviour. [**getEndCap()**](http://docs.google.com/ch/aplu/turtle/Pen.html#getEndCap()) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Query the Pens end cap style. [**getFillColor()**](http://docs.google.com/ch/aplu/turtle/Pen.html#getFillColor()) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Query the Pens fill color. [**getFont()**](http://docs.google.com/ch/aplu/turtle/Pen.html#getFont()) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Query the current font. [**getFont()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#getFont()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Returns the current Font. [**getFontSize()**](http://docs.google.com/ch/aplu/turtle/Pen.html#getFontSize()) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Query the size (in points, rounded to int) of the current font. [**getLineJoin()**](http://docs.google.com/ch/aplu/turtle/Pen.html#getLineJoin()) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Query the Pens line join style. [**getLineWidth()**](http://docs.google.com/ch/aplu/turtle/Pen.html#getLineWidth()) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Query the Pens line width [**getMiterLimit()**](http://docs.google.com/ch/aplu/turtle/Pen.html#getMiterLimit()) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Query the Pens miter limit style. [**getPen()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#getPen()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Get the Turtles Pen. [**getPlayground()**](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html#getPlayground()) - Method in class ch.aplu.turtle.[TurtleFrame](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html) returns the playground of this TurtleFrame. [**getPlayground()**](http://docs.google.com/ch/aplu/turtle/TurtleContainer.html#getPlayground()) - Method in interface ch.aplu.turtle.[TurtleContainer](http://docs.google.com/ch/aplu/turtle/TurtleContainer.html) As the Turtles live in a Playground actually, you must have access to it. [**getPlayground()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#getPlayground()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Get the Playground. [**getPos()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#getPos()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Query the turtle's position [**getPosition()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#getPosition()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html)   [**getStroke()**](http://docs.google.com/ch/aplu/turtle/Pen.html#getStroke()) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Get the Pens Stroke [**getTurtle(int)**](http://docs.google.com/ch/aplu/turtle/Playground.html#getTurtle(int)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Returns the Turtle at index index. [**getTurtleFactory()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#getTurtleFactory()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Returns the TurtleFactory of this turtle. [**getX()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#getX()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Query the turtle's x-position. [**getY()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#getY()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Query the turtle's y-position.

## **H**

[**heading()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#heading()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Query the Turtles heading. [**heading(double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#heading(double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Set the Turtles heading to the new value. [**hideTurtle()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#hideTurtle()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Hides the turtle. [**home()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#home()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Move the Turtle back "home", i.e. set its position to the origin, facing NORTH. [**ht()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#ht()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Hides the turtle.

## **I**

[**imageChanged(double)**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html#imageChanged(double)) - Method in class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html) Tells whether the image has changed. [**imageUpdate(Image, int, int, int, int, int)**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html#imageUpdate(java.awt.Image,%20int,%20int,%20int,%20int,%20int)) - Method in class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html) As an image stays unchanged, there's no need to ever update it. [**imageUpdate(Image, int, int, int, int, int)**](http://docs.google.com/ch/aplu/turtle/Playground.html#imageUpdate(java.awt.Image,%20int,%20int,%20int,%20int,%20int)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html)   [**init(double, double)**](http://docs.google.com/ch/aplu/turtle/LineRenderer.html#init(double,%20double)) - Method in class ch.aplu.turtle.[LineRenderer](http://docs.google.com/ch/aplu/turtle/LineRenderer.html) Initialisation with coordinates x and y. [**init(Playground, Color)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#init(ch.aplu.turtle.Playground,%20java.awt.Color)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Initialize the Turtle. [**init(Point2D.Double)**](http://docs.google.com/ch/aplu/turtle/LineRenderer.html#init(java.awt.geom.Point2D.Double)) - Method in class ch.aplu.turtle.[LineRenderer](http://docs.google.com/ch/aplu/turtle/LineRenderer.html) Same as init(double x, double y), but with a Point2D.Double argument for convenience [**init(String, Playground)**](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html#init(java.lang.String,%20ch.aplu.turtle.Playground)) - Method in class ch.aplu.turtle.[TurtleFrame](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html)   [**init(TurtleContainer, Color)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#init(ch.aplu.turtle.TurtleContainer,%20java.awt.Color)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) This is only a "meta-method" for calling the init(Playground, Color) method. [**init(TurtleContainer, Dimension)**](http://docs.google.com/ch/aplu/turtle/Playground.html#init(ch.aplu.turtle.TurtleContainer,%20java.awt.Dimension)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Initializes everything, e.g. creates a new vector (which holds the Turtles), the offscreen buffers, and sets the size and background color. [**init(TurtleFactory, int)**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html#init(ch.aplu.turtle.TurtleFactory,%20int)) - Method in class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html) Creates the images. [**internalHide()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#internalHide()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) This is the method called by the public methods ht() and hideTurtle(). [**internalLineTo(double, double)**](http://docs.google.com/ch/aplu/turtle/LineRenderer.html#internalLineTo(double,%20double)) - Method in class ch.aplu.turtle.[LineRenderer](http://docs.google.com/ch/aplu/turtle/LineRenderer.html) Calls the clipLineTo and wrapLineTo methods, according to the turtle's edge behavior. [**internalPaint(double, double, Graphics)**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html#internalPaint(double,%20double,%20java.awt.Graphics)) - Method in class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html) Calls clipPaint and WrapPaint(). [**internalPenErase()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#internalPenErase()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html)   [**internalSetPos(double, double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#internalSetPos(double,%20double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Set the Turtles Position. [**internalSetX(double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#internalSetX(double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Set the Turtles x-Coordinate. [**internalSetY(double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#internalSetY(double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Set the Turtles y-Coordinate. [**internalToScreenCoords(double, double)**](http://docs.google.com/ch/aplu/turtle/Playground.html#internalToScreenCoords(double,%20double)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Calculates the screen coordinates. [**isHidden()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#isHidden()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Tells wheter the Turtle is hidden or not. [**isPenUp()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#isPenUp()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Query the Pens state (up or down).

## **L**

[**label(String)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#label(java.lang.String)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Paints the specified Text at the current Turtle position. [**label(String, Turtle)**](http://docs.google.com/ch/aplu/turtle/Playground.html#label(java.lang.String,%20ch.aplu.turtle.Turtle)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Draws the text at the current position of the Turtle t. [**left(double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#left(double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Same as lt(double degrees) [**LineRenderer**](http://docs.google.com/ch/aplu/turtle/LineRenderer.html) - class ch.aplu.turtle.[LineRenderer](http://docs.google.com/ch/aplu/turtle/LineRenderer.html).This class is responsible for drawing the turtle's lines.[**lineTo(double, double)**](http://docs.google.com/ch/aplu/turtle/LineRenderer.html#lineTo(double,%20double)) - Method in class ch.aplu.turtle.[LineRenderer](http://docs.google.com/ch/aplu/turtle/LineRenderer.html) Calls the internalLineTo(x,y), which does the actual painting. [**lineTo(Point2D.Double)**](http://docs.google.com/ch/aplu/turtle/LineRenderer.html#lineTo(java.awt.geom.Point2D.Double)) - Method in class ch.aplu.turtle.[LineRenderer](http://docs.google.com/ch/aplu/turtle/LineRenderer.html) Calls the internalLineTo(x,y), which does the actual painting. [**lt(double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#lt(double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Turns the Turtle degrees degrees to the left.

## **P**

[**paint(double, double)**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html#paint(double,%20double)) - Method in class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html) This method is responsible for painting the turtle onto the playground at (x, y). [**paint(double, double, Graphics)**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html#paint(double,%20double,%20java.awt.Graphics)) - Method in class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html) This method is responsible for painting the Turtle at (x, y). [**paint(Point2D.Double)**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html#paint(java.awt.geom.Point2D.Double)) - Method in class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html) This method is responsible for painting the turtle onto the playground at p. [**paint(Point2D.Double, Graphics)**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html#paint(java.awt.geom.Point2D.Double,%20java.awt.Graphics)) - Method in class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html) This method is responsible for painting the Turtle at p. [**paintComponent()**](http://docs.google.com/ch/aplu/turtle/Playground.html#paintComponent()) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Paints the Playground. [**paintComponent(Graphics)**](http://docs.google.com/ch/aplu/turtle/Playground.html#paintComponent(java.awt.Graphics)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Draws the canvas and turtle buffers. [**paintTurtles()**](http://docs.google.com/ch/aplu/turtle/Playground.html#paintTurtles()) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Just paint all turtles. [**paintTurtles(Turtle)**](http://docs.google.com/ch/aplu/turtle/Playground.html#paintTurtles(ch.aplu.turtle.Turtle)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Moves the given Turtle above all the others, then paints all turtles. [**pd()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#pd()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Lowers the Turtles Pen down so it will draw a line when moving. [**pe()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#pe()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) The Turtles Pen is changed to an eraser (which is in fact a pen with background color). [**Pen**](http://docs.google.com/ch/aplu/turtle/Pen.html) - class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html).The Pen class provides anything used for drawing the lines, such as line width, pen color, end caps, dashed lines, etc.[**Pen()**](http://docs.google.com/ch/aplu/turtle/Pen.html#Pen()) - Constructor for class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Constructor with standard Color and standard Stroke. [**Pen(Color)**](http://docs.google.com/ch/aplu/turtle/Pen.html#Pen(java.awt.Color)) - Constructor for class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Constructor with Color color and standard Stroke. [**penDown()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#penDown()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Lowers the Turtles Pen down so it will draw a line when moving. [**penErase()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#penErase()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) The Turtles Pen is changed to an eraser (which is in fact a pen with background color). [**penUp()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#penUp()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Lifts the Turtles Pen up so it won't draw a line anymore when moving. [**penWidth()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#penWidth()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Query the pen width. [**penWidth(int)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#penWidth(int)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Set the pen width. [**Playground**](http://docs.google.com/ch/aplu/turtle/Playground.html) - class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html).A Playground is the Turtle's home, i.e. the Turtle lives and moves in the Playground. [**Playground(TurtleContainer)**](http://docs.google.com/ch/aplu/turtle/Playground.html#Playground(ch.aplu.turtle.TurtleContainer)) - Constructor for class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Create a new Playground inside the given TurtleContainer and with standard size (400 x 400 pixels). [**Playground(TurtleContainer, Dimension)**](http://docs.google.com/ch/aplu/turtle/Playground.html#Playground(ch.aplu.turtle.TurtleContainer,%20java.awt.Dimension)) - Constructor for class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Create a new Playground inside the given TurtleContainer and size. [**pu()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#pu()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Lifts the Turtles Pen up so it won't draw a line anymore when moving.

## **R**

[**reinit()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#reinit()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Resets the turtle to its standard settings. [**remove(Turtle)**](http://docs.google.com/ch/aplu/turtle/Playground.html#remove(ch.aplu.turtle.Turtle)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Removes a Turtle from the Playground. [**right(double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#right(double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Same as rt(double degrees). [**rt(double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#rt(double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Turns the Turtle degrees degrees to the right.

## **S**

[**setAngle(double)**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html#setAngle(double)) - Method in class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html) Sets the current image to the one corresponding to the angle angle. [**setAngleResolution(int)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#setAngleResolution(int)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Set the angle resolution for the turtle's pictures. [**setColor(Color)**](http://docs.google.com/ch/aplu/turtle/Pen.html#setColor(java.awt.Color)) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Set the Pens color. [**setColor(Color)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#setColor(java.awt.Color)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Set the turtle's color to the specified one. [**setDash(float[])**](http://docs.google.com/ch/aplu/turtle/Pen.html#setDash(float%5B%5D)) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Set the Pens dash array. [**setDashPhase(float)**](http://docs.google.com/ch/aplu/turtle/Pen.html#setDashPhase(float)) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Set the Pens dash phase. [**setEdgeBehaviour(int)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#setEdgeBehaviour(int)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Sets the edge behaviour to the specified value; [**setEndCap(int)**](http://docs.google.com/ch/aplu/turtle/Pen.html#setEndCap(int)) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Set the Pens end cap style. [**setFillColor(Color)**](http://docs.google.com/ch/aplu/turtle/Pen.html#setFillColor(java.awt.Color)) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Set the Pens fill color. [**setFillColor(Color)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#setFillColor(java.awt.Color)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Set the fill color to the specified one. [**setFont(Font)**](http://docs.google.com/ch/aplu/turtle/Pen.html#setFont(java.awt.Font)) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Change the font to the given one. [**setFont(Font)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#setFont(java.awt.Font)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Sets the current Font to the specified one. [**setFont(String, int, int)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#setFont(java.lang.String,%20int,%20int)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Change the current font to the specified one. [**setFontSize(float)**](http://docs.google.com/ch/aplu/turtle/Pen.html#setFontSize(float)) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Change the font size (in points). [**setFontSize(int)**](http://docs.google.com/ch/aplu/turtle/Pen.html#setFontSize(int)) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Change the font size (in points). [**setFontSize(int)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#setFontSize(int)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Sets the Font size. [**setFontStyle(int)**](http://docs.google.com/ch/aplu/turtle/Pen.html#setFontStyle(int)) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Change the font style. [**setFontStyle(int)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#setFontStyle(int)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Sets the Font style. [**setH(double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#setH(double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Set the Turtles heading. 0 means facing NORTH. [**setHeading(double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#setHeading(double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) This is the same as setH(double degrees). [**setLineJoin(int)**](http://docs.google.com/ch/aplu/turtle/Pen.html#setLineJoin(int)) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Set the Pens line join style. [**setLineWidth(double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#setLineWidth(double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Set the Line Thickness. [**setLineWidth(float)**](http://docs.google.com/ch/aplu/turtle/Pen.html#setLineWidth(float)) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Set the Pens line width. [**setLineWidth(float)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#setLineWidth(float)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Set the Line Thickness. [**setLocation()**](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html#setLocation()) - Method in class ch.aplu.turtle.[TurtleFrame](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html) If you don't want the Windows to appear on the center of the screen, override this method. [**setMiterLimit(float)**](http://docs.google.com/ch/aplu/turtle/Pen.html#setMiterLimit(float)) - Method in class ch.aplu.turtle.[Pen](http://docs.google.com/ch/aplu/turtle/Pen.html) Set the Pens miter limit. [**setPenColor(Color)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#setPenColor(java.awt.Color)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Set the Turtles Pen color. [**setPos(double, double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#setPos(double,%20double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Put the turtle to a new position with specified x- and y-coordinates. [**setPos(Point2D.Double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#setPos(java.awt.geom.Point2D.Double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Put the turtle to a new position. [**setX(double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#setX(double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Sets the x-coordinate of the Turtles position to the given value. [**setY(double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#setY(double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Sets the y-coordinate of the Turtles position to the given value. [**showTurtle()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#showTurtle()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) The same as st(). [**speed(double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#speed(double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Set the Turtles speed. [**st()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#st()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Sets the turtle to show mode. [**stampTurtle()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#stampTurtle()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Leave an imprint of the Turtle on the "canvas". [**standardTurtle(Color, double)**](http://docs.google.com/ch/aplu/turtle/TurtleFactory.html#standardTurtle(java.awt.Color,%20double)) - Method in class ch.aplu.turtle.[TurtleFactory](http://docs.google.com/ch/aplu/turtle/TurtleFactory.html) Generates the Picture of a Turtle with color, angle angle and standard size. [**standardTurtle(Color, double, int)**](http://docs.google.com/ch/aplu/turtle/TurtleFactory.html#standardTurtle(java.awt.Color,%20double,%20int)) - Method in class ch.aplu.turtle.[TurtleFactory](http://docs.google.com/ch/aplu/turtle/TurtleFactory.html) Generates the Picture of a Turtle with color, angle angle and size. [**standardTurtle(Color, double, int, int)**](http://docs.google.com/ch/aplu/turtle/TurtleFactory.html#standardTurtle(java.awt.Color,%20double,%20int,%20int)) - Method in class ch.aplu.turtle.[TurtleFactory](http://docs.google.com/ch/aplu/turtle/TurtleFactory.html) Generates the Picture of a Turtle with color, angle angle, width w and height h. [**standardTurtle(double)**](http://docs.google.com/ch/aplu/turtle/TurtleFactory.html#standardTurtle(double)) - Method in class ch.aplu.turtle.[TurtleFactory](http://docs.google.com/ch/aplu/turtle/TurtleFactory.html) Generates the Picture of a Turtle with angle angle, standard size and standard color. [**standardTurtle(double, int)**](http://docs.google.com/ch/aplu/turtle/TurtleFactory.html#standardTurtle(double,%20int)) - Method in class ch.aplu.turtle.[TurtleFactory](http://docs.google.com/ch/aplu/turtle/TurtleFactory.html) Generates the Picture of a Turtle with angle angle, size and standard Color.

## **T**

[**toBottom()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#toBottom()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Put this turtle to the bottom. [**toBottom(Turtle)**](http://docs.google.com/ch/aplu/turtle/Playground.html#toBottom(ch.aplu.turtle.Turtle)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Puts a Turtle beyond all others. [**toTop()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#toTop()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Put this turtle to the top. [**toTop(Turtle)**](http://docs.google.com/ch/aplu/turtle/Playground.html#toTop(ch.aplu.turtle.Turtle)) - Method in class ch.aplu.turtle.[Playground](http://docs.google.com/ch/aplu/turtle/Playground.html) Puts a Turtle above all others. [**towards(double, double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#towards(double,%20double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Calculates the direction to a given point. [**towards(Point2D.Double)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#towards(java.awt.geom.Point2D.Double)) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Calculates the direction to a given point. [**Turtle**](http://docs.google.com/ch/aplu/turtle/Turtle.html) - class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html).The core class for Turtles. [**Turtle()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#Turtle()) - Constructor for class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Create a new Turtle in its own new Window. [**Turtle(Color)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#Turtle(java.awt.Color)) - Constructor for class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Create a new Turtle with specified color in its own new Window. [**Turtle(Turtle)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#Turtle(ch.aplu.turtle.Turtle)) - Constructor for class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Create a new Turtle in the same TurtleContainer (Window) as otherTurtle [**Turtle(Turtle, Color)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#Turtle(ch.aplu.turtle.Turtle,%20java.awt.Color)) - Constructor for class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Create a new Turtle with the specified color in the same TurtleContainer (Window) as otherTurtle [**Turtle(TurtleContainer)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#Turtle(ch.aplu.turtle.TurtleContainer)) - Constructor for class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Create a new Turtle and puts it into the (already existing) turtleContainer [**Turtle(TurtleContainer, Color)**](http://docs.google.com/ch/aplu/turtle/Turtle.html#Turtle(ch.aplu.turtle.TurtleContainer,%20java.awt.Color)) - Constructor for class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Create a new Turtle with specified color in the specified turtleContainer. [**TurtleContainer**](http://docs.google.com/ch/aplu/turtle/TurtleContainer.html) - interface ch.aplu.turtle.[TurtleContainer](http://docs.google.com/ch/aplu/turtle/TurtleContainer.html).Implement this interface if you define your own top-level container which contains turtles.[**TurtleFactory**](http://docs.google.com/ch/aplu/turtle/TurtleFactory.html) - class ch.aplu.turtle.[TurtleFactory](http://docs.google.com/ch/aplu/turtle/TurtleFactory.html).This class provides functionality for generating images (java.awt.Image) of a Turtle for any angle, color (java.awt.Color) and size.[**TurtleFactory()**](http://docs.google.com/ch/aplu/turtle/TurtleFactory.html#TurtleFactory()) - Constructor for class ch.aplu.turtle.[TurtleFactory](http://docs.google.com/ch/aplu/turtle/TurtleFactory.html)   [**TurtleFrame**](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html) - class ch.aplu.turtle.[TurtleFrame](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html).This class is used for a Turtle Application. [**TurtleFrame()**](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html#TurtleFrame()) - Constructor for class ch.aplu.turtle.[TurtleFrame](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html) New Window with no title and new Playground. [**TurtleFrame(int, int)**](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html#TurtleFrame(int,%20int)) - Constructor for class ch.aplu.turtle.[TurtleFrame](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html) New Window with no title and new Playground with width and height. [**TurtleFrame(Playground)**](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html#TurtleFrame(ch.aplu.turtle.Playground)) - Constructor for class ch.aplu.turtle.[TurtleFrame](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html) New Window with no title and specified Playground [**TurtleFrame(String)**](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html#TurtleFrame(java.lang.String)) - Constructor for class ch.aplu.turtle.[TurtleFrame](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html) If you want a new Window with a new Playground and specified title, this is the constructor you need. [**TurtleFrame(String, int, int)**](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html#TurtleFrame(java.lang.String,%20int,%20int)) - Constructor for class ch.aplu.turtle.[TurtleFrame](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html) If you want a new Window with a new Playground (with width and height) and specified title, this is the constructor you need. [**TurtleFrame(String, Playground)**](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html#TurtleFrame(java.lang.String,%20ch.aplu.turtle.Playground)) - Constructor for class ch.aplu.turtle.[TurtleFrame](http://docs.google.com/ch/aplu/turtle/TurtleFrame.html) New Window with specified Playground. [**TurtleRenderer**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html) - class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html).This class is responsible for creating and choosing the correct Turtle picture.

## **W**

[**WRAP**](http://docs.google.com/ch/aplu/turtle/Turtle.html#WRAP) - Static variable in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Represents wrap mode. [**wrap()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#wrap()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Causes the turtle to wrap around the edges. [**wrapLineTo(double, double)**](http://docs.google.com/ch/aplu/turtle/LineRenderer.html#wrapLineTo(double,%20double)) - Method in class ch.aplu.turtle.[LineRenderer](http://docs.google.com/ch/aplu/turtle/LineRenderer.html) Does the actual painting for wrap mode. [**wrapPaint(int, int, Graphics)**](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html#wrapPaint(int,%20int,%20java.awt.Graphics)) - Method in class ch.aplu.turtle.[TurtleRenderer](http://docs.google.com/ch/aplu/turtle/TurtleRenderer.html) Defines how to paint in wrap mode (and does it!) [**wraps()**](http://docs.google.com/ch/aplu/turtle/Turtle.html#wraps()) - Method in class ch.aplu.turtle.[Turtle](http://docs.google.com/ch/aplu/turtle/Turtle.html) Tells wheter the turtle is in wrap mode.[A](#1fob9te) [B](#3znysh7) [C](#2et92p0) [D](#tyjcwt) [F](#3dy6vkm) [G](#1t3h5sf) [H](#4d34og8) [I](#2s8eyo1) [L](#17dp8vu) [P](#3rdcrjn) [R](#26in1rg) [S](#lnxbz9) [T](#35nkun2) [W](#1ksv4uv)

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| PREV   NEXT | [**FRAMES**](http://docs.google.com/index.html)    [**NO FRAMES**](http://docs.google.com/index-all.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |