a list of built-in objects in ofelia.

------------------------- WINDOW -------------------------

ofWindow	- handle the output window
ofGetWidth	- get the width of the current window
ofGetHeight	- get the height of the current window
ofGetDimen	- get the dimensions of the current window
ofGetScale	- get the scale of the current window
ofGetFrameNum	- get the number of frames rendered
ofGetFrameRate	- get the actual frame rate of the current window
ofGetTargetFrameRate	- get the target frame rate of the current window
ofGetElapsedTime	- get the elapsed time in milliseconds
ofGetLastFrameTime	- get the last frame time in milliseconds
ofGetOrienLock	- get the orientation lock state of the current window
ofGetOrien	- get the orientation of the current window
ofGetFullscreen	- get the fullscreen state of the current window
ofGetFocus	- get the focus state of the current window
ofGetPosX	- get the x position of the current window
ofGetPosY	- get the y position of the current window
ofGetPos	- get the position of the current window
ofGetScreenWidth	- get the width of the current device's screen
ofGetScreenHeight	- get the height of the current device's screen
ofGetScreenDimen	- get the dimensions of the current device's screen
ofGetRetina	- get the retina scale of the current device's screen
ofGetBgColorR	- get the r value of the background color
ofGetBgColorG	- get the g value of the background color
ofGetBgColorB	- get the b value of the background color
ofGetBgColor	- get the background color of the current window
ofGetWindow	- check if a window exists
ofGetFirstRenderOrder	- get the first rendering order
ofGetLastRenderOrder	- get the last rendering order
ofTouchListener	- listen to the touch events
ofMouseListener	- listen to the mouse events
ofScrollListener	- listen to the mouse scroll events
ofKeyListener	- listen to the key events
ofAccelListener	- listen to the accelerometer events
ofScaleListener	- listen to the updated scale of the current window
ofOrienListener	- listen to the updated orientation of the current window
ofFullscreenListener	- listen to the fullscreen mode of the current window
ofFocusListener	- listen to the focus state of the current window
ofPosListener	- listen to the updated position of the current window
ofWindowListener	- listen to the creation/destruction of the current window
ofWindowLoadBang	- listen to the creation of the current window
ofWindowCloseBang	- listen to the destruction of the current window
ofBackListener	- listen to the back button press on android devices

------------------------ GRAPHICS ------------------------

ofHead	- the start of a rendering chain
ofTranslate	- move along the coordinate system
ofRotateX	- rotate around the x-axis of the coordinate system
ofRotateY	- rotate around the y-axis of the coordinate system
ofRotateZ	- rotate around the z-axis of the coordinate system
ofRotateXYZ	- rotate around the xyz-axis of the coordinate system
ofRotate	- produce a rotation of angle around the vector
ofScale	- scale along the coordinate system
ofPushMatrix	- push the current matrix
ofPopMatrix	- pop the current matrix
ofSetColor	- set the draw color
ofSetBgColor	- set the background color
ofSetRectMode	- set the align mode for drawing rectangular objects
ofSetTextMode	- set the align mode for drawing texts
ofSetFillMode	- set the fill mode for drawing shaped objects
ofSetPolyMode	- set the poly winding mode for drawing
ofSetBlendMode	- set the blend mode for drawing
ofSetLineWidth	- set the width of the lined objects
ofSetLineSmoothing	- enable/disable the smoothing for lines
ofSetCircleRes	- set the resolution for circular objects
ofSetCurveRes	- set the resolution for curved objects
ofPushStyle	- push the current style
ofPopStyle	- pop the current style
ofSepMatrix	- separate render chains in matrix
ofSepStyle	- separate render chains in style
ofSeparator	- separate render chains in matrix and style
ofViewport	- setup the drawing viewport
ofSetDepthTest	- enable/disable the depth test
ofSetArbTex	- enable/disable the use of ARB textures
ofSetAntiAliasing	- enable/disable the anti-aliasing for lines
ofSetBgAuto	- enable/disable the auto background clearing function
ofClear	- clear the color and depth bits of current renderer
ofClearColor	- clear the color bits of current renderer
ofClearDepth	- clear the depth bits of current renderer
ofClearAlpha	- clear the alpha channel of current renderer
ofBeginShape	- start drawing a new shape
ofEndShape	- finish drawing the shape and draw it to the screen
ofNextContour	- draw multiple contours within one shape
ofVertex2d	- specify a single 2d point of a shape
ofVertex3d	- specify a single 3d point of a shape
ofCurveVertex2d	- specify a single 2d point of a shape
ofCurveVertex3d	- specify a single 3d point of a shape
ofBezierVertex2d	- describe a bezier curve through three points of a shape
ofBezierVertex3d	- describe a bezier curve through three points of a shape
ofCircle	- draw a circle
ofEllipse	- draw an ellipse
ofArc	- draw an arc
ofSector	- draw a sector
ofLine2d	- draw a 2d line
ofLine3d	- draw a 3d line
ofCurve2d	- draw a 2d curve
ofCurve3d	- draw a 3d curve
ofBezier2d	- draw a 2d bezier curve
ofBezier3d	- draw a 3d bezier curve
ofQuadBezier2d	- draw a 2d quadratic bezier curve
ofQuadBezier3d	- draw a 3d quadratic bezier curve
ofTriangle2d	- draw a 2d triangle
ofTriangle3d	- draw a 3d triangle
ofEqTriangle	- draw an equilateral triangle
ofIsoTriangle	- draw an isosceles triangle
ofQuad2d	- draw a 2d quadrilateral
ofQuad3d	- draw a 3d quadrilateral
ofSquare	- draw a square
ofRectangle	- draw a rectangle
ofRectRounded	- draw a rounded rectangle with a given corner radius
ofRectRounded4	- draw a rounded rectangle with a given 4 corner radiuses
ofCross	- draw a cross
ofHeart	- draw a heart
ofMoon	- draw a moon
ofRegPolygon	- draw a regular polygon
ofStar	- draw a star
ofAxis	- draw axes
ofBox	- draw a box
ofCone	- draw a cone
ofCylinder	- draw a cylinder
ofIcosphere	- draw an icosphere
ofPlane	- draw a plane
ofSphere	- draw a sphere
ofArrow	- draw an arrow
ofGrid	- draw grid planes
ofGridPlane	- draw a yz grid plane
ofRotationAxes	- draw a set of 3-axis aligned circular bands
ofLoadPolyline2d	- store an array of polyline2d commands
ofLoadPolyline3d	- store an array of polyline3d commands
ofDrawPolyline2d	- draw the stored polyline2d
ofDrawPolyline3d	- draw the stored polyline3d
ofDoesPolyline2dNameExist	- check the existence of a polyline2d variable name
ofDoesPolyline3dNameExist	- check the existence of a polyline3d variable name
ofEditPolyline2dPoint	- edit the stored polyline2d point
ofEditPolyline3dPoint	- edit the stored polyline3d point
ofGetPolyline2dPoint	- get a polyline2d point at the given index
ofGetPolyline3dPoint	- get a polyline3d point at the given index
ofGetPolyline2dPoints	- get all polyline2d points as a list
ofGetPolyline3dPoints	- get all polyline3d points as a list
ofIsPointInsidePolyline2d	- check if a 2d point is within a closed polyline2d
ofIsPointInsidePolyline3d	- check if a 2d point is within a closed polyline3d
ofGetPolyline2dCommand	- get a polyline2d command at the given index
ofGetPolyline3dCommand	- get a polyline3d command at the given index
ofGetPolyline2dCommands	- get all polyline2d commands as a list
ofGetPolyline3dCommands	- get all polyline3d commands as a list
ofGetPolyline2dBoundingBox	- get the dimensions of the polyline2d bounding box
ofGetPolyline3dBoundingBox	- get the dimensions of the polyline3d bounding box
ofGetPolyline2dCentroid	- get the center position of the polyline2d area
ofGetPolyline3dCentroid	- get the center position of the polyline3d area
ofGetPolyline2dArea	- get the precise area of the polyline2d
ofGetPolyline3dArea	- get the precise area of the polyline3d
ofGetPolyline2dPerimeter	- get the size of the perimeter of the polyline2d
ofGetPolyline3dPerimeter	- get the size of the perimeter of the polyline3d
ofLoadPath2d	- store an array of path2d commands
ofLoadPath3d	- store an array of path3d commands
ofDrawPath2d	- draw the stored path2d
ofDrawPath3d	- draw the stored path3d
ofDoesPath2dNameExist	- check the existence of a path2d variable name
ofDoesPath3dNameExist	- check the existence of a path3d variable name
ofGetPath2dPoint	- get a path2d point at the given index
ofGetPath3dPoint	- get a path3d point at the given index
ofGetPath2dPoints	- get all path2d points as a list
ofGetPath3dPoints	- get all path3d points as a list
ofIsPointInsidePath2d	- check if a 2d point is within a closed path2d
ofIsPointInsidePath3d	- check if a 2d point is within a closed path3d
ofGetPath2dCommand	- get a path2d command at the given index
ofGetPath3dCommand	- get a path3d command at the given index
ofGetPath2dCommands	- get all path2d commands as a list
ofGetPath3dCommands	- get all path3d commands as a list
ofGetPath2dTessellation	- get the tessellation data to convert path2d to mesh2d
ofGetPath3dTessellation	- get the tessellation data to convert path3d to mesh3d
ofGetPath2dBoundingBox	- get the dimensions of the path2d bounding box
ofGetPath3dBoundingBox	- get the dimensions of the path3d bounding box
ofGetPath2dCentroid	- get the center position of the path2d area
ofGetPath3dCentroid	- get the center position of the path3d area
ofGetPath2dArea	- get the precise area of the path2d
ofGetPath3dArea	- get the precise area of the path3d
ofGetPath2dPerimeter	- get the size of the perimeter of the path2d
ofGetPath3dPerimeter	- get the size of the perimeter of the path3d
ofCreateFbo	- create framebuffer object
ofBindFboTex	- bind the stored fbo's texture
ofDrawFbo	- draw the stored fbo
ofDoesFboNameExist	- check the existence of a fbo variable name
ofIsFboAllocated	- check if the fbo is allocated or not
ofGetFboDimen	- get the dimensions of the fbo
ofGetFboType	- get the type of the fbo
ofCreateImage	- create an image
ofLoadImage	- store an array of images
ofEditImage	- edit the stored image
ofSaveImage	- save image to disk
ofBindImageTex	- bind the stored image's texture
ofDrawImage	- draw the stored image
ofDrawSubImage	- draw a subsection of the image
ofDoesImageNameExist	- check the existence of an image variable name
ofGetImagePath	- get the absolute path of the image
ofIsImageAllocated	- check if the image is allocated or not
ofGetImageDimen	- get the dimensions of the image
ofGetImageType	- get the type of the image
ofGetImageColorAt	- get the color of a pixel at the specified x, y index
ofGetImageTexCoord	- get the texture coordinate of the image from 2d vertex
ofGetImageTexCoords	- get the texture coordinates of the image from 2d vertices
ofLoadFont	- store an array of fonts
ofEditFont	- edit the stored font
ofBindFontTex	- bind the stored font's texture
ofDrawText	- draw a text using the stored font
ofDrawTextAsShapes	- draw a text as shapes using the stored font
ofDoesFontNameExist	- check the existence of a font variable name
ofGetFontPath	- get the absolute path of the font
ofGetFontSize	- get the size of the font
ofIsFontLoaded	- check if the font is loaded or not
ofGetTextBoundingBox	- get the dimensions of the text bounding box
ofGetFontLetterSpacing	- get the letter spacing of the font
ofGetFontLineHeight	- get the line height of the font
ofGetFontSpaceSize	- get the space size of the font
ofGetTextMesh2dCommands	- get the mesh2d data based on the font and text
ofGetTextMesh3dCommands	- get the mesh3d data based on the font and text
ofLoadMesh2d	- store a set of arrays for a 2d mesh
ofLoadMesh3d	- store a set of arrays for a 3d mesh
ofDrawMesh2d	- draw the stored mesh2d
ofDrawMesh3d	- draw the stored mesh3d
ofDoesMesh2dNameExist	- check the existence of a mesh2d variable name
ofDoesMesh3dNameExist	- check the existence of a mesh3d variable name
ofEditMesh2dVertex	- edit the stored mesh2d vertex
ofEditMesh3dVertex	- edit the stored mesh3d vertex
ofEditMesh2dIndex	- edit the stored mesh2d index
ofEditMesh3dIndex	- edit the stored mesh3d index
ofEditMesh2dNormal	- edit the stored mesh2d normal
ofEditMesh3dNormal	- edit the stored mesh3d normal
ofEditMesh2dTexCoord	- edit the stored mesh2d texture coordinate
ofEditMesh3dTexCoord	- edit the stored mesh3d texture coordinate
ofEditMesh2dColor	- edit the stored mesh2d color
ofEditMesh3dColor	- edit the stored mesh3d color
ofGetMesh2dVertex	- get the mesh2d vertex at the given index
ofGetMesh3dVertex	- get the mesh3d vertex at the given index
ofGetMesh2dIndex	- get the mesh2d index at the given index
ofGetMesh3dIndex	- get the mesh3d index at the given index
ofGetMesh2dNormal	- get the mesh2d normal at the given index
ofGetMesh3dNormal	- get the mesh3d normal at the given index
ofGetMesh2dTexCoord	- get the mesh2d texture coordinate at the given index
ofGetMesh3dTexCoord	- get the mesh3d texture coordinate at the given index
ofGetMesh2dColor	- get the mesh2d color at the given index
ofGetMesh3dColor	- get the mesh3d color at the given index
ofGetMesh2dVertices	- get all mesh2d vertices as a list
ofGetMesh3dVertices	- get all mesh3d vertices as a list
ofGetMesh2dIndices	- get all mesh2d indices as a list
ofGetMesh3dIndices	- get all mesh3d indices as a list
ofGetMesh2dNormals	- get all mesh2d normals as a list
ofGetMesh3dNormals	- get all mesh3d normals as a list
ofGetMesh2dTexCoords	- get all mesh2d texture coordinates as a list
ofGetMesh3dTexCoords	- get all mesh3d texture coordinates as a list
ofGetMesh2dColors	- get all mesh2d colors as a list
ofGetMesh3dColors	- get all mesh3d colors as a list
ofGetMesh2dCommands	- get all mesh2d commands as a list
ofGetMesh3dCommands	- get all mesh3d commands as a list
ofGetMesh2dBoundingBox	- get the dimensions of the mesh2d bounding box
ofGetMesh3dBoundingBox	- get the dimensions of the mesh3d bounding box
ofGetMesh2dCentroid	- get the centroid of all the vetices in the mesh2d
ofGetMesh3dCentroid	- get the centroid of all the vetices in the mesh3d
ofEasyCam	- a simple camera for interacting with objects in 3d space
ofCamera	- a basic camera for interacting with objects in 3d space
ofPointLight	- a light that spreads outward evenly in all directions
ofSpotlight	- a light that spreads outward in a cone
ofDirectionalLight	- a light that comes evenly from a given direction
ofMaterial	- set the material of the object

------------------------- TYPES -------------------------

ofLoadFloat	- store an array of floats
ofEditFloat	- edit the stored float
ofDoesFloatNameExist	- check the existence of a float variable name
ofGetFloat	- get a float element at the given index
ofGetFloats	- get all float elements as a list
ofGetFloatAverage	- get the average value of float elements
ofLoadVec2f	- store an array of two dimensional vectors
ofEditVec2f	- edit the stored vec2f
ofDoesVec2fNameExist	- check the existence of a vec2f variable name
ofGetVec2f	- get a vec2f element at the given index
ofGetVec2fs	- get all vec2f elements as a list
ofGetVec2fAverage	- get the average value of vec2f elements
ofGetVec2fAngle	- get the angle in degrees between two vec2fs
ofGetVec2fAngleRad	- get the angle in radians between two vec2fs
ofGetVec2fDist	- get the distance between two vec2fs
ofGetVec2fDistSquared	- get the squared distance between two vec2fs
ofGetVec2fDot	- get the dot product of two vec2fs
ofGetVec2fLength	- get the length of the vec2f element
ofGetVec2fLengthSquared	- get the squared length of the vec2f element
ofLoadVec3f	- store an array of three dimensional vectors
ofEditVec3f	- edit the stored vec3f
ofDoesVec3fNameExist	- check the existence of a vec3f variable name
ofGetVec3f	- get a vec3f element at the given index
ofGetVec3fs	- get all vec3f elements as a list
ofGetVec3fAverage	- get the average value of vec3f elements
ofGetVec3fAngle	- get the angle in degrees between two vec3fs
ofGetVec3fAngleRad	- get the angle in radians between two vec3fs
ofGetVec3fDist	- get the distance between two vec3fs
ofGetVec3fDistSquared	- get the squared distance between two vec3fs
ofGetVec3fDot	- get the dot product of two vec3fs
ofGetVec3fLength	- get the length of the vec3f element
ofGetVec3fLengthSquared	- get the squared length of the vec3f element
ofLoadVec4f	- store an array of four dimensional vectors
ofEditVec4f	- edit the stored vec4f
ofDoesVec4fNameExist	- check the existence of a vec4f variable name
ofGetVec4f	- get a vec4f element at the given index
ofGetVec4fs	- get all vec4f elements as a list
ofGetVec4fAverage	- get the average value of vec4f elements
ofGetVec4fDist	- get the distance between two vec4fs
ofGetVec4fDistSquared	- get the squared distance between two vec4fs
ofGetVec4fDot	- get the dot product of two vec4fs
ofGetVec4fLength	- get the length of the vec4f element
ofGetVec4fLengthSquared	- get the squared length of the vec4f element
ofLoadColor	- store an array of colors
ofEditColor	- edit the stored color
ofDoesColorNameExist	- check the existence of a color variable name
ofGetColor	- get a color element at the given index
ofGetColors	- get all color elements as a list
ofLoadSymbol	- store an array of symbols
ofEditSymbol	- edit the stored symbol
ofDoesSymbolNameExist	- check the existence of a symbol variable name
ofGetSymbol	- get a symbol element at the given index
ofGetSymbols	- get all symbol elements as a list

-------------------------- MATH --------------------------

ofAngleDifferenceDegrees	- calculate the difference between two angles in degrees
ofAngleDifferenceRadians	- calculate the difference between two angles in radians
ofDegToRad	- convert degrees to radians
ofRadToDeg	- convert radians to degrees
ofDist2d	- calculate the 2d distance between two points
ofDist3d	- calculate the 3d distance between two points
ofDistSquared2d	- calculate the squared 2d distance between two points
ofDistSquared3d	- calculate the squared 3d distance between two points
ofInRange	- determine if a number is inside of a given range
ofClamp	- clamp a value between min and max
ofNormalize	- map the input value to be within 0 and 1
ofLerp	- linearly interpolate a value within a range
ofLerpDegrees	- linearly interpolate a value between two angles in degrees
ofLerpRadians	- linearly interpolate a value between two angles in radians
ofRandom	- get a random number within a given range
ofRandomf	- get a random floating point number between -1 and 1
ofRandomuf	- get a random floating point number between 0 and 1
ofSeedRandom	- seed the random number generator with a unique value
ofWrap	- wrap a value if it overflows a given range
ofWrapDegrees	- wrap a value within the angle in degrees
ofWrapRadians	- wrap a value within the angle in radians
ofMap	- map the value to a new value
ofNextPow2	- calculate the next larger power of 2
ofNoise	- calculate a simplex noise value between 0 and 1
ofSignedNoise	- calculate a simplex noise value between -1 and 1
ofSign	- get the sign of a value

------------------------- UTILS -------------------------

ofAppend	- append a symbol to an incoming message
ofPrepend	- prepend a symbol to an incoming message
ofPack	- combine several atoms into one message
ofListFind	- get indices of sublists found in a list
ofFindList	- get indices of sublists found in a list
ofListInsert	- insert a list into a list
ofInsertList	- insert a list into a list
ofListFill	- fill a list with element
ofFillList	- fill a list with element
ofListReplace	- replace sublists in a list
ofReplaceList	- replace sublists in a list
ofListRemove	- remove sublists in a list
ofRemoveList	- remove sublists in a list
ofListErase	- remove a range of elements from a list
ofEraseList	- remove a range of elements from a list
ofListSort	- sort a list in ascending or descending order
ofListUnique	- remove duplicates from a list
ofListReverse	- reverse the order of a list
ofListShuffle	- randomly change the order of a list
ofListToSymbol	- convert a list into a symbol
ofSymbolToList	- convert a symbol into a list
ofHexToHsb	- convert hex color values to hsb color values
ofHexToRgb	- convert hex color values to rgb color values
ofHsbToHex	- convert hsb color values to hex color values
ofHsbToRgb	- convert hsb color values to rgb color values
ofRgbToHex	- convert rgb color values to hex color values
ofRgbToHsb	- convert rgb color values to hsb color values
ofValue	- nonlocal shared value
ofSend	- send messages without patch cords
ofReceive	- receive messages without patch cords
ofExpr	- expression evaluation object
ofDefine	- expression evaluation object
ofPatch	- open/close pd patches
ofGetCanvasName	- get the unique name of the canvas
ofGetDollarZero	- get the $0 value of the patch
ofGetDollarArgs	- get the arguments of the patch
ofError	- print an error to the pd console
ofFile	- create/remove/rename/copy/move files
ofSaveURL	- save a file from a url
ofDoesFileExist	- check the existence of a file
ofGetDirectoryFileNames	- get the list of file names in a directory
ofGetDirectoryFilePaths	- get the list of file paths in a directory
ofDirectory	- create/remove/rename/copy/move directories
ofGetPatchDirectory	- get the directory of the patch
ofGetHomeDirectory	- get the user home directory on desktop platforms
ofGetDocumentsDirectory	- get the documents directory on ios devices
ofGetLibraryDirectory	- get the library directory on ios devices
ofGetTemporaryDirectory	- get the temporary directory on ios devices
ofDoesDirectoryExist	- check the existence of a directory
ofGetAudioDevices	- get a list of all available input/output audio devices
ofSetAudioDevices	- set input/output audio device, sample rate and block size
ofGetMidiDevices	- get a list of all available input/output midi devices
ofSetMidiDevices	- set input/output midi device
ofCount	- count over a range
ofCountUntil	- count over a range at once
ofStep	- increase or decrease a value in steps
ofAnimate	- smoothly change a value over time
ofSwitch	- pass messages from a specific inlet
ofGate	- route a message to an outlet
ofGetMinFloat	- get the lowest possible float
ofGetMaxFloat	- get the highest possible float
ofGetPlatform	- get the OS platform being used
ofGetDate	- get the day/month/year
ofGetTime	- get the time in seconds/minutes/hours

------------------------- AUDIO -------------------------

ofSine~	- sine wave oscillator
ofTriangle~	- triangle wave oscillator
ofSaw~	- sawtooth wave oscillator
ofSquare~	- square wave oscillator
ofPulse~	- pulse wave oscillator
ofBlTriangle~	- bandlimited triangle wave oscillator
ofBlSaw~	- bandlimited sawtooth wave oscillator
ofBlSquare~	- bandlimited square wave oscillator
ofBlPulse~	- bandlimited pulse wave oscillator
ofLowPass~	- low-pass filter with resonance control
ofHighPass~	- high-pass filter with resonance control
ofBandPass~	- band-pass filter with Q control
ofNotch~	- notch filter with bandwidth control
ofPeaking~	- peaking filter with Q and gain control
ofLowShelf~	- low shelf filter with shelf slope and gain control
ofHighShelf~	- high shelf filter with shelf slope and gain control
ofAllPass~	- all-pass filter with bandwidth control