declare -lib ofelia a list of built-in objects in ofelia. ----- WINDOW ------- initialize the ofelia external library ofelia <u>o</u>fWindow - handle the output window ofGetWidth - get the width of the current window <u>o</u>fGetHeight - get the height of the current window - get the dimensions of the current window <u>o</u>fGetDimen ofGetWindowScale - get the scale of the current window ofGetFrameNum - get the number of frames rendered <u>o</u>fGetFrameRate - get the actual frame rate of the current window <u>o</u>fGetTargetFrameRate - get the target frame rate of the current window ofGetElapsedTime - get the elapsed time in seconds <u>o</u>fGetElapsedTimeMillis - get the elapsed time in milliseconds <u>o</u>fGetLastFrameTime - get the last frame time in seconds ofGetLastFrameTimeMillis - 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 <u>o</u>fGetFocus - get the focus state of the current window - get the x position of the current window <u>o</u>fGetWindowPosX ofGetWindowPosY - get the y position of the current window <u>o</u>fGetWindowPos - get the position of the current window ofGetScreenWidth - get the width of the current device's screen <u>o</u>fGetScreenHeight - get the height of the current device's screen ofGetScreenDimen - get the dimensions of the current device's screen - get the retina scale of the current device's screen ofGetRetina - get the r value of the background color <u>o</u>fGetBgColorR <u>o</u>fGetBgColorG - get the g value of the background color <u>o</u>fGetBgColorB - get the b value of the background color <u>o</u>fGetBgColor - get the background color of the current window <u>o</u>fGetWindow - check if a window exists - get the first rendering order ofGetFirstRenderOrder ofGetLastRenderOrder - get the last rendering order <u>o</u>fTouch<u>L</u>istene<u>r</u> - listen to the touch events <u>o</u>fMouse<u>L</u>istene<u>r</u> - listen to the mouse events <u>o</u>fScrollListener - listen to the mouse scroll events <u>o</u>fKeyListener - listen to the key events <u>o</u>fKeyCodeListener - listen to the key events independent of modifiers <u>o</u>fAccelListener - listen to the accelerometer events <u>o</u>fWindowScaleListener - listen to the updated scale of the current window ofOrienListener - listen to the updated orientation of the current window - listen to the fullscreen mode of the current window <u>o</u>fFullscreenListener - listen to the focus state of the current window <u>o</u>fFocusListener <u>o</u>fWindowPosListener - listen to the updated position of the current window <u>o</u>fWindowListener - listen to the creation/destruction of the current window - listen to the creation of the current window <u>o</u>fWindowLoadBang <u>o</u>fWindowCloseBang - listen to the destruction of the current window <u>o</u>fBackListener - listen to the back button press on android devices ----- GRAPHICS ----ofHead - the start of a rendering chain <u>o</u>fTranslate - move along the coordinate system - rotate around the x-axis of the coordinate system ofRotateX ofRotateY - rotate around the y-axis of the coordinate system <u>o</u>fRotateZ - 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 <u>o</u>fPushMatrix - push the current matrix <u>o</u>fPopMatrix - pop the current matrix <u>o</u>fGetTranslate - get the current translate information ofGetRotate - get the current rotate information <u>o</u>fGetScale - get the current scale information ofSetColor - set the draw color ofSetBgColor - set the background color ofSetRectMode - set the align mode for drawing rectangular objects - set the align mode for drawing texts ofSetTextMode <u>o</u>fSetFillMode - set the fill mode for drawing shaped objects ofSetPolyMode - set the poly winding mode for drawing <u>o</u>fSetBlendMode - 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 <u>o</u>fSetCurveRes - set the resolution for curved objects <u>o</u>fPushStyle - push the current style ofPopStyle - pop the current style <u>o</u>fSepMatrix - separate render chains in matrix ofSepStyle - separate render chains in style <u>o</u>fSeparator - separate render chains in matrix and style <u>o</u>fViewport - setup the drawing viewport <u>o</u>fSetDepthTest - enable/disable the depth test <u>o</u>fSetArbTex - enable/disable the use of ARB textures ofSetAntiAliasing - enable/disable the anti-aliasing for lines <u>o</u>fSetBgAuto - enable/disable the auto background clearing function ofClear - clear the color and depth bits of current renderer <u>o</u>fClearColor - clear the color bits of current renderer <u>o</u>fClearDepth - clear the depth bits of current renderer <u>o</u>fClearAlpha - clear the alpha channel of current renderer <u>o</u>fBeginShape - 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 <u>o</u>fArc - 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 <u>o</u>fEqTriangle - draw an equilateral triangle ofIsoTriangle - draw an isosceles triangle ofQuad2d - draw a 2d quadrilateral ofQuad3d - draw a 3d quadrilateral <u>o</u>fSquare - 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 <u>o</u>fRegPolygon - draw a regular polygon ofStar - draw a star ofAxis - draw axes ofBox - draw a box <u>o</u>fCone - draw a cone <u>o</u>fCylinder - draw a cylinder <u>o</u>fIcosphere - draw an icosphere ofPlane - draw a plane <u>o</u>fSphere - draw a sphere <u>o</u>fArrow - draw an arrow ofGrid - draw grid planes ofGridPlane - draw a yz grid plane <u>o</u>fRotationAxes - 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 - check the existence of a polyline2d variable name ofDoesPolyline2dNameExist 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 - check if a 2d point is within a closed polyline2d ofIsPointInsidePolyline2d 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 <u>o</u>fGetPolyline2dPerimeter - 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 - check if a 2d point is within a closed path2d ofIsPointInsidePath2d 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 - get the dimensions of the path2d bounding box ofGetPath2dBoundingBox 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 - create framebuffer object <u>o</u>fCreateFbo 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 <u>o</u>fGetFboType - get the type of the fbo ofGetFboMaxSamples - get the maximum number of MSAA samples ofGetFboTexID - get the texture ID of the fbo <u>o</u>fCreateImage - create an image ofLoadImag<u>e</u> - store an array of images <u>o</u>fEditImage - edit the stored image <u>o</u>fSaveImage - save image to disk <u>o</u>fBindImageTex - bind the stored image's texture <u>o</u>fDrawImage - draw the stored image ofDrawSubImage - draw a subsection of the image <u>o</u>fDoesImageNameExist - check the existence of an image variable name <u>o</u>fGetImagePath - get the absolute path of the image ofIsImageAllocated - check if the image is allocated or not ofGetImageDimen - get the dimensions of the image <u>o</u>fGetImageType - get the type of the image ofGetImageColorAt - get the color of a pixel at the specified  $\mathbf{x}$ ,  $\mathbf{y}$  index ofGetImageTexCoord - get the texture coordinate of the image from 2d vertex ofGetImageTexCoords - get the texture coordinates of the image from 2d vertices ofGetImageTexID - get the texture ID of the image <u>o</u>fLoadShader - store an array of shaders <u>o</u>fApplyShader - apply the shader <u>o</u>fDoesShaderNameExist - check the existence of a shader variable name <u>o</u>fGetShaderPath - get the absolute path of the shader ofIsShaderLoaded - check if the shader is loaded or not ofSetShaderUniform1i - set a int uniform on the shader ofSetShaderUniform2i - set a ivec2 uniform on the shader ofSetShaderUniform3i - set a ivec3 uniform on the shader ofSetShaderUniform4i - set a ivec4 uniform on the shader ofSetShaderUniform1f - set a float uniform on the shader ofSetShaderUniform2f - set a vec2 uniform on the shader ofSetShaderUniform3f - set a vec3 uniform on the shader ofSetShaderUniform4f - set a vec4 uniform on the shader ofSetShaderUniform1iv - set an array of int uniform on the shader ofSetShaderUniform2iv - set an array of ivec2 uniform on the shader ofSetShaderUniform3iv - set an array of ivec3 uniform on the shader ofSetShaderUniform4iv - set an array of ivec4 uniform on the shader ofSetShaderUniform1fv - set an array of float uniform on the shader ofSetShaderUniform2fv - set an array of vec2 uniform on the shader ofSetShaderUniform3fv - set an array of vec3 uniform on the shader ofSetShaderUniform4fv - set an array of vec4 uniform on the shader ofSetShaderUniformTex - set a texture reference on the shader ofSetShaderAttribute1f - set 1 float attribute on the shader ofSetShaderAttribute2f - set 2 float attributes on the shader ofSetShaderAttribute3f - set 3 float attributes on the shader ofSetShaderAttribute4f - set 4 float attributes on the shader - set an array of 1 float attribute on the shader ofSetShaderAttribute1fv ofSetShaderAttribute2fv - set an array of 2 float attributes on the shader ofSetShaderAttribute3fv - set an array of 3 float attributes on the shader ofSetShaderAttribute4fv - set an array of 4 float attributes on the shader ofLoadFont - store an array of fonts ofEditFont - edit the stored font ofBindFontTex - bind the stored font's texture <u>o</u>fDrawText - draw a text using the stored font <u>o</u>fDrawTextAsShapes - 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 <u>o</u>fGetFontSize - get the size of the font <u>o</u>fIsFontLoaded - check if the font is loaded or not <u>o</u>fGetTextBoundingBox - get the dimensions of the text bounding box ofGetFontLetterSpacing - get the letter spacing of the font <u>o</u>fGetFontLineHeight - 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 - draw the stored mesh2d ofDrawMesh2d ofDrawMesh3d - draw the stored mesh3d ofDoesMesh2dNameExist - check the existence of a mesh2d variable name ofDoesMesh3dNameExist - check the existence of a mesh3d variable name - edit the stored mesh2d vertex ofEditMesh2dVertex 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 - get the mesh3d texture coordinate at the given index ofGetMesh3dTexCoord 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 <u>o</u>fEasyCam - a simple camera for interacting with objects in 3d space ofCamera - a basic camera for interacting with objects in 3d space <u>o</u>fPointLight - a light that spreads outward evenly in all directions <u>o</u>fSpotlight - a light that spreads outward in a cone ofDirectionalLight - a light that comes evenly from a given direction <u>o</u>fMaterial - set the material of the object ----- TYPES ------<u>o</u>fLoadFloat - store an array of floats <u>o</u>fEditFloat - edit the stored float <u>o</u>fDoesFloatNameExist - check the existence of a float variable name <u>o</u>fGetFloat - get a float element at the given index <u>o</u>fGetFloats - 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 - edit the stored vec3f ofEditVec3f 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 <u>o</u>fLoadColor - store an array of colors - edit the stored color <u>o</u>fEditColor <u>o</u>fDoesColorNameExist - check the existence of a color variable name <u>o</u>fGetColor - get a color element at the given index - get all color elements as a list <u>o</u>fGetColors <u>o</u>fLoadRect - store an array of rectangles ofEditRect - edit the stored rectangle <u>o</u>fDoesRectNameExist - check the existence of a rectangle variable name ofGetRect - get a rectangle element at the given index <u>o</u>fGetRects - get all rectangle elements as a list <u>o</u>fIsPointInsideRect - check if a point is inside the rectangle ofIsLineInsideRect - check if a line is inside the rectangle ofIsRectInsideRect - check if a rectangle is inside the rectangle <u>o</u>fDoesLineIntersectRect - check if a line intersects with the rectangle <u>o</u>fDoesRectIntersectRect - check if a rectangle intersects with the rectangle - get the center position of the rectangle ofGetRectCenter ofGetRectArea - get the area of the rectangle ofGetRectPerimeter - get the perimeter of the rectangle <u>o</u>fLoadSymbol - store an array of symbols <u>o</u>fEditSymbol - edit the stored symbol <u>o</u>fDoesSymbolNameExist - check the existence of a symbol variable name <u>o</u>fGetSymbol - get a symbol element at the given index <u>o</u>fGetSymbols - get all symbol elements as a list ----- MATH ----ofAngleDifferenceDegrees - calculate the difference between two angles in degrees <u>o</u>fAngleDifferenceRadians - 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 - calculate the 3d distance between two points ofDist3d ofDistSquared2d - calculate the squared 2d distance between two points - calculate the squared 3d distance between two points ofDistSquared3d ofInRange - determine if a number is inside of a given range <u>o</u>fClamp - clamp a value between min and max - map the input value to be within  $\boldsymbol{0}$  and  $\boldsymbol{1}$ <u>o</u>fNormalize ofLerp - linearly interpolate a value within a range <u>o</u>fLerpDegrees - 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 <u>o</u>fRandomf - get a random floating point number between -1 and 1  $\,$ <u>o</u>fRandomuf - get a random floating point number between 0 and 1  $\,$ ofSeedRandom - seed the random number generator with a unique value <u>o</u>fWrap - wrap a value if it overflows a given range <u>o</u>fWrapDegrees - wrap a value within the angle in degrees <u>o</u>fWrapRadians - wrap a value within the angle in radians <u>o</u>fMap - map the value to a new value ofNextPow2 - calculate the next larger power of 2 ofNoise - calculate a simplex noise value between 0 and  $\mathbf{1}$ <u>o</u>fSignedNoise - calculate a simplex noise value between -1 and 1 <u>o</u>fSign - get the sign of a value ------ UTILS ------<u>o</u>fAppend - append a symbol to an incoming message ofPrepend - prepend a symbol to an incoming message ofPack - combine several atoms into one message <u>o</u>fListFind - get indices of sublists found in a list ofFindList - get indices of sublists found in a list <u>o</u>fListInsert - insert a list into a list <u>o</u>fInsertList - insert a list into a list ofListFill - fill a list with element ofFillList - fill a list with element ofListReplace - replace sublists in a list <u>o</u>fReplaceList - replace sublists in a list <u>o</u>fListRemove - remove sublists in a list <u>o</u>fRemoveList - remove sublists in a list ofListErase - remove a range of elements from a list ofEraseList - remove a range of elements from a list <u>o</u>fListSort - sort a list in ascending or descending order <u>o</u>fListUnique - remove duplicates from a list <u>o</u>fListReverse - 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 <u>o</u>fHsbToHex - convert hsb color values to hex color values <u>o</u>fHsbToRgb - 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 ofGetDollarZero - get the \$0 value of the patch ofGetCanvasName - get the unique name of the canvas ofGetCanvasIndex - get the index of the canvas <u>o</u>fGetCanvasArgs - get the arguments of the canvas ofSetCanvasArgs - set the arguments of the canvas ofRemoveCanvas - remove the canvas 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 <u>o</u>fGetDirectoryFileNames - get the list of file names in a directory ofGetDirectoryFilePaths - get the list of file paths in a directory <u>o</u>fDirectory - create/remove/rename/copy/move directories ofGetPatchDirectory - get the directory of the patch ofGetHomeDirectory - get the user home directory on desktop platforms <u>o</u>fGetDocumentsDirectory - get the documents directory on ios devices <u>o</u>fGetLibraryDirectory - get the library directory on ios devices <u>ofGetTemporaryDirectory</u> - get the temporary directory on ios devices <u>o</u>fDoesDirectoryExist - check the existence of a directory <u>o</u>fGetAudioDevice<u>s</u> - get a list of all available input/output audio devices ofSetAudioDevices - set input/output audio device, sample rate and block size <u>o</u>fGetMidiDevices - 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 <u>o</u>fAnimate - 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 <u>o</u>fGetMaxFloat - get the highest possible float <u>o</u>fGetPlatform - get the OS platform being used <u>o</u>fGetDate - 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 - bandlimited square wave oscillator <u>o</u>fBlSquare∼ 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~

ofAllPass~

- high shelf filter with shelf slope and gain control

- all-pass filter with bandwidth control