The Unofficial Blitz3D Quick Reference Guide

by

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CATEGORIZED LIST OF COMMANDS

BASIC Commands

Const	Global	Local	Dim
For To Step Next	If Then Else ElseIf (Else If) EndIf (End If)	New Each First Last Before	Type Field End Type While Wend
Select Case Default End Select	Goto Gosub Return	After Insert Delete	Repeat Until Forever
And	True	Data	Function
Or	False	Read	End Function
Not	Null	Restore	Include
Exit			

SYSTEM

AppTitle	SetEnv	ExecFile	ShowPointer
CommandLine	GetEnv	RuntimeError	HidePointer
SystemProperty	CallDLL	End	

DATE & TIME

CurrentDate	CreateTimer	FreeTimer	WaitTimer
CurrentTime	Millisecs	Delay	

MATH

Standard

Pi	Mod	Floor	Rnd
Int	Sqr	Ceil	Rand
Float	Sin	ASin	SeedRnd
Exp	Cos	ACos	RndSeed
Log	Tan	ATan	Atan2
Log10	Shl	Shr	Sar
Xor	Sgn	Abs	

3-D

VectorPitch	VectorYaw

INPUT

Keyboard

Input	GetKey	WaitKey	KeyHit
KeyDown	FlushKeys		

Joystick

JoyType	JoyX	JoyXDir	JoyYaw
JoyDown	JoyY	JoyYDir	JoyPitch
JoyHit	JoyZ	JoyZDir	JoyRoll
GetJoy	JoyU	JoyUDir	JoyHat
WaitJoy	JoyV	JoyVDir	FlushJoy

Mouse

GetMouse	MoveMouse	MouseX	MouseXSpeed
WaitMouse	MouseDown	MouseY	MouseYSpeed
FlushMouse	MouseHit	MouseZ	MouseZSpeed

OUTPUT

Text

Print	Write	Text	Locate

Characters & Codes

Chr	Asc	Hex	Bin

Strings

Str	Instr	String	Len
Left	LSet	Upper	
Right	RSet	Lower	
Mid	Trim	Replace	

Fonts

LoadFont	FontWidth	StringWidth	FreeFont
SetFont	FontHeight	StringHeight	

DATA STORAGE

Memory Access

PeekByte	PokeByte	CreateBank	CopyBank
PeekShort	PokeShort	FreeBank	
PeekInt	PokeInt	BankSize	
PeekFloat	PokeFloat	ResizeBank	

File Management

OpenFile	NextFile	ReadDir	CreateDir
ReadFile	CopyFile	CloseDir	DeleteDir
WriteFile	DeleteFile	CurrentDir	FileType
CloseFile	FilePos	ChangeDir	FileSize
SeekFile			

File Management (continued)

Eof	ReadInt	ReadBytes	WriteFloat
ReadAvail	ReadFloat	WriteByte	WriteString
ReadByte	ReadString	WriteShort	WriteLine
ReadShort	ReadLine	WriteInt	WriteBytes

GRAPHICS

2-D Modes

Graphics	CountGFXModes	GfxModeExists	GFXModeWidth
EndGraphics	CountGfxDrivers	SetGfxDriver	GFXModeHeight
TotalVidMem	AvailVidMem	GfxDriverName	GFXModeDepth

2-D Commands

Cls	SetBuffer	ReadPixel	GetColor
ClsColor	FrontBuffer	WritePixel	ColorRed
GraphicsHeight	BackBuffer	ReadPixelFast	ColorGreen
GraphicsWidth	LoadBuffer	WritePixelFast	ColorBlue
GraphicsDepth	SaveBuffer	CopyPixel	SetGamma
GraphicsBuffer	LockBuffer	CopyPixelFast	UpdateGamma
VWait	UnlockBuffer	CopyRect	GammaRed
ScanLine	Flip	Viewport	GammaGreen
Origin	Plot	Rect	GammaBlue
Color	Line	Oval	

3-D Modes

GfxMode3D	GfxDriver3D	GfxDriverCaps3D	Windowed3D
CountGfxModes3D	GfxMode3DExists	HWTexUnits	

Images

LoadImage	DrawImage	MidHandle	ImageWidth
CopyImage	DrawImageRect	AutoMidHandle	ImageHeight
CreateImage	DrawBlockRect	ScaleImage	ImageXHandle
LoadAnimImage	DrawBlock	ResizeImage	ImageYHandle
FreeImage	TileImage	RotateImage	ImagesOverlap
SaveImage	TileBlock	TFormImage	ImagesCollide
GrabImage	MaskImage	TFormFilter	ImageRectOverlap
ImageBuffer	HandleImage	RectsOverlap	ImageRectCollide

3D WORLDS

Global Commands

AmbientLight	ClearWorld	HWMultiTex	UpdateWorld
AntiAlias	Collisions	LoaderMatrix	WBuffer
CaptureWorld	Dither	RenderWorld	Wireframe
ClearCollisions	Graphics3D	TrisRendered	

Textures

ClearTextureFilters	LoadTexture	SetCubeMode	TextureHeight
CreateTexture	PositionTexture	TextureBlend	TextureName
FreeTexture	RotateTexture	TextureBuffer	TextureWidth
GetBrushTexture	ScaleTexture	TextureCoords	
LoadAnimTexture	SetCubeFace	TextureFilter	

Brushes

CreateBrush	BrushColor	BrushTexture	GetEntityBrush
LoadBrush	BrushAlpha	BrushBlend	GetSurfaceBrush
FreeBrush	BrushShininess	BrushFX	

Meshes

CreateMesh	PaintMesh	MeshesIntersect	CreateCube
LoadMesh	LightMesh	MeshWidth	CreateSphere
LoadAnimMesh	FitMesh	MeshHeight	CreateCylinder
CopyMesh	ScaleMesh	MeshDepth	CreateCone
AddMesh	RotateMesh	CountSurfaces	UpdateNormals
FlipMesh	PositionMesh	GetSurface	

Surfaces

CreateSurface	VertexRed	VertexX	AddVertex
PaintSurface	VertexGreen	VertexY	VertexCoords
ClearSurface	VertexBlue	VertexZ	VertexNormal
FindSurface	VertexAlpha	VertexNX	VertexColor
AddTriangle	VertexU	VertexNY	VertexTexCoords
CountTriangles	VertexV	VertexNZ	
CountVertices	VertexW	TriangleVertex	

Cameras

CreateCamera	CameraFogColor	CameraRange	PickedTime
CameraProjMode	CameraViewport	CameraZoom	PickedEntity
CameraFogMode	CameraClsMode	CameraPick	PickedSurface
CameraFogRange	CameraClsColor	CameraProject	PickedTriangle
PickedX	PickedNX	ProjectedX	EntityInView
PickedY	PickedNY	ProjectedY	
PickedZ	PickedNZ	ProjectedZ	

Lights

CreateLight	LightRange	LightColor	LightConeAngles

Pivot

CreatePivot

Sprites

CreateSprite	RotateSprite	HandleSprite	SpriteViewMode
LoadSprite	ScaleSprite		

MD2

LoadMD2	MD2AnimTime	MD2AnimLength	MD2Animating
AnimateMD2			

BSP

LoadBSP	BSPAmbientLight	BSPLighting	

Planes

CreatePlane

Mirrors

CreateMirror

Terrains

CreateTerrain	TerrainX	TerrainSize	TerrainHeight
LoadTerrain	TerrainY	TerrainDetail	
ModifyTerrain	TerrainZ	TerrainShading	

ENTITIES (3D)

Movement

ScaleEntity	MoveEntity	RotateEntity	PointEntity
PositionEntity	TranslateEntity	TurnEntity	AlignToVector

Animation

LoadAnimSeq	ExtractAnimSeq	SetAnimKey	AddAnimSeq
Animate	AnimSeq	AnimLength	AnimTime
SetAnimTime	Animating		

Control

FreeEntity	NameEntity	EntityColor	EntityTexture
CopyEntity	EntityParent	EntityAlpha	EntityBlend
HideEntity	GetParent	EntityShininess	EntityFX
ShowEntity	EntityOrder	EntityAutoFade	PaintEntity

States

EntityX	EntityName	EntityVisible	EntityPick
EntityY	CountChildren	EntityClass	LinePick
EntityZ	GetChild	EntityDistance	GetMatElement
EntityRoll	FindChild	TFormPoint	TFormedX
EntityYaw	DeltaYaw	TFormVector	TFormedY
EntityPitch	DeltaPitch	TFormNormal	TFormedZ

Collisions

ResetEntity	EntityCollided	CollisionTime	CollisionSurface
EntityRadius	CountCollisions	CollisionEntity	CollisionTriangle
EntityBox	CollisionX	CollisionNX	GetEntityType
EntityType	CollisionY	CollisionNY	
EntityPickMode	CollisionZ	CollisionNZ	

AUDIO

Sounds

LoadSound	LoopSound	SoundVolume	SoundPan
PlaySound	FreeSound	SoundPitch	

Music

PlayMusic	StopChannel	PauseChannel	ResumeChannel
PlayCDTrack	ChannelVolume	ChannelPlaying	ChannelPan
ChannelPitch			

Listener (3D)

CreateListener	Load3DSound	EmitSound

NETWORKING

IP

HostIP	CountHostIPs	DottedIP	CopyStream

TCP

OpenTCPStream	CreateTCPServer	CloseTCPServer	TCPTimeouts
CloseTCPStream	AcceptTCPStream	TCPStreamIP	TCPStreamPort

UDP

CreateUDPStream	SendUDPMsg	UDPStreamIP	UDPMsgIP
CloseUDPStream	RecvUDPMsg	UDPStreamPort	UDPMsgPort
UDPTimeouts			

DIRECTX

DirectPlay

StartNetGame	CreateNetPlayer	RecvNetMsg	NetMsgData
HostNetGame	DeleteNetPlayer	NetMsgType	SendNetMsg
JoinNetGame	NetPlayerName	NetMsgFrom	
StopNetGame	NetPlayerLocal	NetMsgTo	

DirectShow

OpenMovie	CloseMovie	DrawMovie
MoviePlaying	MovieWidth	MovieHeight

DEBUG

DebugLog	Stop

ALPHABETICAL LIST OF COMMANDS

Abs ..... Use this command to return the absolute value of a number; meaning its positive value...
AcceptTCPStream ..... "Accepts an incoming TCP/IP stream, and returns a TCP/IP stream if one is available, or 0 if not..."
ACos ..... ACos(c) is an angle which has cosine = c...
AddAnimSeq ..... Creates an animation sequence for an entity...
AddMesh ..... Adds the source mesh to the destination mesh...
AddTriangle ..... "Adds a triangle to a surface and returns the triangle's index number, starting from 0..."
AddVertex ..... "Adds a vertex to the specified surface and returns the vertices' index number, starting from 0..."
After ..... "If you haven't read up on the TYPE command, you might want to do so before continuing..."
AlignToVector ..... Aligns an entity axis to a vector...
AmbientLight ..... Sets the ambient lighting colour...
And ..... AND is a logical operator for doing conditional checks of multiple values and/or expressions...
Animate ..... Animates an entity...
AnimateMD2 ..... Animates an md2 entity...
Animating ..... Returns true if the specified entity is currently animating...
AnimLength ..... Returns the length of the specified entity's current animation sequence...
AnimSeq ..... Returns the specified entity's current animation sequence...
AnimTime ..... Returns the current animation time of an entity...
AntiAlias ..... Enables or disables fullscreen antialiasing...
AppTitle ..... "Allows you to set the text of the program's title bar, and 'close program?' message box..."
Asc ..... This will return the ASCII value of the first letter of a string...
ASin ..... ASin(s) is an angle which has sine = s...
ATan ..... ATan(t) is an angle which has tangent = t...
ATan2 ..... "ATan2 gives the angle between the positive x-axis and a vector from the point (0,0) to the point (x,y)..."
AutoMidHandle ..... "When an image is loaded with LoadImage, the image handle (the location within the image where the image is 'drawn from') is always defaulted to the top left corner (coordinates 0,0)..."
AvailVidMem ..... This command will return the total bytes of available free video memory...
BackBuffer ..... This is a value usually used with SETBUFFER to denote the secondary non-visible drawing buffer called the Back Buffer...
BankSize ..... Use this command to determine the size of an existing bank...
Before ..... "If you haven't read up on the TYPE command, you might want to do so before continuing..."
Bin ..... Converts integer values into binary values...
BrushAlpha ..... Sets the alpha level of a brush...
BrushBlend ..... Sets the blending mode for a brush...
BrushColor ..... Sets the colour of a brush...
BrushFX ..... Sets miscellaneous effects for a brush...
BrushShininess ..... Sets the specular shininess of a brush...
BrushTexture ..... Assigns a texture to a brush...
BSPAmbientLight ... Sets the ambient lighting colour for a BSP model...
BSPLighting ..... "Controls whether BSP models are illuminated using lightmaps, or by vertex lighting..."
CallDLL ..... The DLL is called with pointers to and sizes of bank memory...

CameraClsColor..... Sets camera background color...
CameraClsMode..... Sets camera clear mode...
CameraFogColor..... Sets camera fog color...
CameraFogMode..... Sets the camera fog mode...
CameraFogRange.... Sets camera fog range...
CameraPick..... Picks the entity positioned at the specified viewport coordinates...
CameraProject ..... "Projects the world coordinates x,y,z on to the 2D screen..."
CameraProjMode.... Sets the camera projection mode...
CameraRange..... Sets camera range...
CameraViewport..... Sets the camera viewport position and size...
CameraZoom..... Sets zoom factor for a camera...
CaptureWorld ..... "CaptureWorld 'captures' the properties (position, rotation, scale, alpha etc) of each entity in the 3D world..."
Case ..... "When using a SELECT structure, the CASE command defines the starting point of command execution if the SELECT value matches the CASE value..."
Ceil..... As with Floor there is often some confusion with negative numbers: Ceil(1...
ChangeDir ..... "This command will change the currently selected directory for disk operations, useful for advanced file operations..."
ChannelPan ..... "When you want to do real sound panning effects, this is the command you'll use..."
ChannelPitch..... You can alter the pitch of a sound channel that is playing (or in use and just paused)...
ChannelPlaying ..... Often you will need to know if a sound channel has completed playing or not...
ChannelVolume..... "While SoundVolume happily changes the volume of the entire program, this command will let you adjust volume rates on a 'per channel' basis..."
Chr..... Use this command to convert a known ASCII code (for example 65) to its character string equivelant (i...
ClearCollisions ..... Clears the collision information list...
ClearSurface..... Removes all vertices and/or triangles from a surface...
ClearTextureFilters. Clears the current texture filter list...
ClearWorld..... "Clears all entities, brushes and/or textures from the screen and from memory..."
CloseDir..... "Once you are finished with NextFile$ on the directory previously opened for read with the ReadDir command, use this command to close the directory..."
CloseFile ..... Use this command to close a file previously opened...
CloseMovie ..... Closes a movie that you have opened with @OpenMovie ...
CloseTCPServer..... Closes a TCP/IP server previously created with the CreateTCPServer command...
CloseTCPStream..... "Once you've completed the use of your TCP/IP stream, close the connection you opened with OpenTCPStream with this command..."
CloseUDPStream.....
Cls.....
ClsColor..... This changes the color for subsequent CLS calls...
CollisionEntity..... Returns the other entity involved in a particular collision...
CollisionNX ..... Returns the x component of the normal of a particular collision...
CollisionNY ..... Returns the y component of the normal of a particular collision...
CollisionNZ..... Returns the z component of the normal of a particular collision...
Collisions ..... Enables collisions between two different entity types...
CollisionSurface..... Returns the handle of the surface belonging to the specified entity that was closest to the point of a particular collision...
CollisionTime..... Returns the time taken to calculate a particular collision...
CollisionTriangle..... Returns the index number of the triangle belonging to the specified entity that was closest to the point of a particular collision...
CollisionX ..... Returns the world x coordinate of a particular collision...
CollisionY ..... Returns the world y coordinate of a particular collision...
CollisionZ ..... Returns the world z coordinate of a particular collision...
Color..... "This command sets the drawing color (using RGB values) for all subsequent drawing commands (Line, Rect, Text, etc..."
ColorBlue..... Use this command to return the blue component of the RGB color of the current drawing color...

ColorGreen.....Use this command to return the green component of the RGB color of the current drawing color...
ColorRed .....Use this command to return the red component of the RGB color of the current drawing color...
CommandLine.....'If you are writing an application or game that allows starting with special parameters on the command line, you can use this command to retrieve the parameters...'
Consistency.....'* In the first line, try to write a very brief description of what the command does, and what it returns...'
Const.....This declares a variable as a constant (a variable whose value will never change and cannot be changed) and assigns the value to it...
CopyBank.....Copies data from one memory bank to another...
CopyEntity.....Creates a copy of an entity and returns the handle of the newly created copy...
CopyFile.....Use this command to copy a file from one location to another...
CopyImage.....'Instead of loading a graphic twice in two different handles, you can load the image ONCE then use the CopyImage command to make as many copies in memory as you want...'
CopyMesh.....Creates a copy of a mesh and returns the newly-created mesh's handle...
CopyPixel.....You can use this command on a locked buffer for a slight speed-up...
CopyPixelFast.....'IMPORTANT: You *must* use this command on a locked buffer, otherwise the command will fail...'
CopyRect .....Copies a rectangle of graphics from one buffer to another...
CopyStream.....Copies a stream...
Cos .....For angles between 0 and 90 degrees this is defined by the sides of a right triangle...
CountChildren.....Returns the number of children of an entity...
CountCollisions .....Returns how many collisions an entity was involved in during the last UpdateWorld...
CountGfxDrivers.....Some computers may have more than one video card and/or video driver installed (a good example is a computer system with a primary video card and a Voodoo2 or other pass-through card)...
CountGFXModes ....Use this command to return the number of video modes the user's video card can display in...
CountGfxModes3D..'Returns the number of 3D compatible modes available on the selected 3D graphics card, and sets up the info to be returned by GfxModeWidth, GfxModeHeight, GfxModeDepth etc (see 2D commands)...'
CountHostIPs .....None...
CountSurfaces .....Returns the number of surfaces in a mesh...
CountTriangles.....Returns the number of triangles in a surface...
CountVertices.....Returns the number of vertices in a surface...
CreateBank.....The bank commands allow you to perform high-speed data operations on a block of memory...
CreateBrush .....Creates a brush and returns a brush handle...
CreateCamera .....Creates a camera entity and returns its handle...
CreateCone.....Creates a cone mesh/entity and returns its handle...
CreateCube.....Creates a cube mesh/entity and returns its handle...
CreateCylinder.....Creates a cylinder mesh/entity and returns its handle...
CreateDir.....Creates a directory (file folder) at the destination specified...
CreateImage .....'Sometimes you want to create a completely new graphic on the fly (using other images, drawing commands, etc...'
CreateLight.....Creates a light...
CreateListener.....Creates a listener entity and returns its handle...
CreateMesh.....Create a 'blank' mesh entity and returns its handle...
CreateMirror.....Creates a mirror entity and returns its handle...
CreateNetPlayer.....Creates a new local player...
CreatePivot.....Creates a pivot entity...
CreatePlane .....Creates a plane entity and returns its handle...
CreateSphere.....Creates a sphere mesh/entity and returns its handle...
CreateSprite .....Creates a sprite entity and returns its handle...
CreateSurface.....Creates a surface attached to a mesh and returns the surface's handle...
CreateTCPServer....Creates a TCP/IP server with the designated port...

CreateTerrain.....Creates a terrain entity and returns its handle...
CreateTexture.....Creates a texture and returns its handle...
CreateTimer .....Use this command in conjunction with the WaitTimer command to control the speed of program execution (fps)...
CreateUDPStream...."If no port is specified, a free port will be allocated and you can then use UDPStreamPort() to find out the allocated port..."
CurrentDate .....Returns the current date in the format: DD MON YYYY (i...
CurrentDir....."This command will return the currently selected directory for disk operations, useful for advanced file operations..."
CurrentTime.....Returns the current time in the format: HH:MM:SS (i...
Data ....."Data is used to create neat, comma delimited lists of values of a constant nature that you will be reading (and probably reusing) during the execution of your game..."
DebugLog .....You power programmers will just love this...
Default ....."In a SELECT structure, you may wish to execute code if none of the cases you specify are met..."
Delay.....This command stops all program execution for the designated time period...
Delete ....."If you haven't read up on the TYPE command, you might want to do so before continuing..."
DeleteDir.....Deletes a specified folder/directory from the device...
DeleteFile.....Deletes a specified file from the drive...
DeleteNetPlayer....."Using the playerID generated by the CreateNetPlayer command, this command will remove the designated player from the network game..."
DeltaPitch ....."Returns the pitch angle, that src_entity should be rotated by in order to face dest_entity..."
DeltaYaw ....."Returns the yaw angle, that src_entity should be rotated by in order to face dest_entity..."
Dim .....Creates an array of the specified type...
Dither.....Enables or disables hardware dithering...
DottedIP.....None...
DrawBlock.....This is similar to the DrawImage command except that any transparency or MaskImage is ignored and the entire image (including masked colors) is drawn...
DrawBlockRect.....This command will let you draw a rectangular PORTION of an image to the designated location on the screen...
DrawImage .....This command draws a previously loaded image...
DrawImageRect.....This command will let you draw a rectangular PORTION of an image to the designated location on the screen...
DrawMovie ....."Viewport and origin are not taken into account, and the movie must be positioned entirely 'on screen', otherwsie nothing will be drawn..."
Each ....."If you haven't read up on the TYPE command, you might want to do so before continuing..."
Else.....There are times during an IF ...
Else If.....During a standard IF ...
ElseIf.....During a standard IF ...
EmitSound .....Emits a sound attached to the specified entity and returns a sound channel...
End.....Use this command to stop your program running...
End Function .....This line terminates a FUNCTION structure...
End If.....END IF signals the end of an IF THEN condition check...
End Select .....This command ends the SELECT structure...
End Type ....."If you haven't read up on the TYPE command, you might want to do so before continuing..."
EndGraphics.....Returns a program to a non-Graphics mode state...
EndIf.....Terminates an IF ...
EntityAlpha .....Sets the entity alpha level of an entity...
EntityAutoFade .....Enables auto fading for an entity...
EntityBlend.....Sets the blending mode of an entity...
EntityBox.....Sets the dimensions of an entity's collision box...
EntityClass.....Returns a string containing the class of the specified entity...
EntityCollided .....Returns the handle of the entity of the specified type that collided with the specified entity...
EntityColor.....Sets the color of an entity...
EntityDistance .....Returns the distance between src_entity and dest_entity...
EntityFX .....Sets miscellaneous effects for an entity...

EntityInView ..... Returns true if the specified entity is visible to the specified camera...
EntityName..... Returns the name of an entity...
EntityOrder ..... Sets the drawing order for an entity...
EntityParent ..... Attaches an entity to a parent...
EntityPick ..... Returns the nearest entity 'ahead' of the specified entity...
EntityPickMode..... Sets the pick mode for an entity...
EntityPitch..... Returns the pitch angle of an entity...
EntityRadius..... Sets the radius of an entity's collision ellipsoid...
EntityRoll ..... Returns the roll angle of an entity...
EntityShininess..... Sets the specular shininess of an entity...
EntityTexture ..... Applies a texture to an entity...
EntityType..... Sets the collision type for an entity...
EntityVisible..... Returns true if src_entity and dest_entity can 'see' each other...
EntityX ..... The X-coordinate of the entity...
EntityY ..... The Y-coordinate of the entity...
EntityYaw..... Returns the yaw angle of an entity...
EntityZ..... The Z-coordinate of the entity...
Eof..... Checks to see if the End of File of an opened file or stream has been reached...
ExecFile ..... "The usefulness of this command is really mostly for calling some system level command, launching a browser, etc..."
Exit..... This command will allow you to leave a For ...
Exp..... This is e^x where e = 2...
ExtractAnimSeq ..... "This command allows you to convert an animation with an MD2-style series of anim sequences into a pure Blitz anim sequence, and play it back as such using Animate..."
FALSE ..... FALSE is a keyword to denote a negative result in a conditional statement...
Field ..... "If you haven't read up on the TYPE command, you might want to do so before continuing..."
FilePos ..... "This command returns the current position within a file that is being processed following ReadFile, WriteFile or OpenFile..."
FileSize..... Often it will be useful to return the size of a file...
FileType ..... This command checks the filename you pass and determines if it exists and whether or not it is a valid filename or if it is a directory...
FindChild..... Returns the first child of the specified entity with name matching child_name$...
FindSurface ..... Attempts to find a surface attached to the specified mesh and created with the specified brush...
First ..... "If you haven't read up on the TYPE command, you might want to do so before continuing..."
FitMesh..... Scales and translates all vertices of a mesh so that the mesh occupies the specified box...
Flip..... Flip will switch the FrontBuffer() and BackBuffer()...
FlipMesh..... Flips all the triangles in a mesh...
Float..... This is the same as Blitz's automatic type conversion...
Floor ..... "Rounds downward, i..."
FlushJoy..... There are many times when you aren't interested in the dozens of possible joystick button pressed the player might have made before you are checking for one in particular...
FlushKeys ..... This command 'resets' or 'empties out' the queue holding the keyboard inputs...
FlushMouse ..... There are many times when you aren't interested in the dozens of possible mouse button pressed the player might have made before you are checking for one in particular...
FontHeight..... "This returns the height, in pixels, of the currently selected font (using SetFont - previously loaded with LoadFont)..."
FontWidth ..... "This returns the width, in pixels, of the currently selected font (using SetFont - previously loaded with LoadFont)..."
For ..... The first command of the FOR ...
Forever ..... Replace the UNTIL command in aREPEAT ...
FreeBank ..... Frees a bank...
FreeBrush ..... Frees up a brush...
FreeEntity..... FreeEntity will free up the internal resources associated with a particular entity and remove it from the scene...

FreeFont ..... This removes a TrueType font previously loaded into memory (though the LoadFont command)...
FreeImage..... "When you are done with an image, use this command to delete the image from memory and free up that memory for other use..."
FreeSound..... "When you are finished using a sound effect, you should free up the memory its using and delete the sound..."
FreeTexture ..... Frees up a texture from memory...
FreeTimer..... This command will destroy a timer variable created with the with the CreateTimer command and free the memory it was using...
FrontBuffer..... It's important to understand buffers when writing a game...
Function..... A function is a routine of commands you may choose to call frequently within your program...
GammaBlue..... Returns the current output blue component of the gamma tables for the specified input blue component...
GammaGreen ..... Returns the current output green component of the gamma tables for the specified input green component...
GammaRed..... Returns the current output red component of the gamma tables for the specified input red component...
GetBrushTexture..... Returns the texture that is applied to the specified brush...
GetChild ..... Returns a child of an entity...
GetColor ..... This command works like a 'color picker' in your favorite paint program...
GetEntityBrush ..... Returns a brush with the same properties as is applied to the specified entity...
GetEntityType..... Returns the collision type of an entity as set by the EntityType command...
GetEnv..... Returns the value of the specified environment variable...
GetJoy..... "Unlike the other similar commands (JoyDown and JoyHit), this command doesn't need to know which button you are trying to test for..."
GetKey..... This command will check to see if a key has been pressed and will return its ASCII value...
GetMatElement..... Returns the value of an element from within an entity's transformation matrix...
GetMouse..... "Unlike the other similar commands (MouseDown and MouseHit), this command doesn't need to know which button you are trying to test for..."
GetParent ..... Returns an entity's parent...
GetSurface..... Returns the handle of the surface attached to the specified mesh and with the specified index number...
GetSurfaceBrush..... Returns a brush with the same properties as is applied to the specified mesh surface...
GfxDriver3D..... GfxDriver3D returns True if the specified graphics driver is 3D-capable...
GfxDriverCaps3D.... Returns the 'caps level' of the current graphics driver...
GfxDriverName..... Some computers may have more than one video card and/or video driver installed (a good example is a computer system with a primary video card and a Voodoo2 or other pass-through card)...
GfxMode3D ..... GfxMode3D returns True if the specified graphics mode is 3D-capable...
GfxMode3DExists.... "GfxMode3DExists will test to see whether the host machine's graphics card supports a certain video mode, as specified by the width, height and depth parameters, and also whether the specified video mode is 3D-capable..."
GFXModeDepth ..... "Once you determine the video modes available by the video card using CountGFXModes(), you can iterate through them and determine the width, height, and color depth capabilities of each mode..."
GfxModeExists ..... Use this command to verify whether or not the user's video card can use this graphic mode...
GFXModeHeight..... "Once you determine the video modes available by the video card using CountGFXModes(), you can iterate through them and determine the width, height, and color depth capabilities of each mode..."
GFXModeWidth..... "Once you determine the video modes available by the video card using CountGFXModes(), you can iterate through them and determine the width, height, and color depth capabilities of each mode..."
Global ..... There are two types of variables in Blitz Basic; local variables and global variables...
Gosub..... "This branches the flow of the program to a designated label, with the understanding that there will be a Return later on in the called code to resume execution of the program where the Gosub was called..."

Goto ..... This branches the flow of the program to a designated label...
GrabImage..... "Quite possibly one of the most useful yet underdocumented, confusing commands in the Blitz Basic language is GrabImage..."
Graphics ..... "This command sets Blitz into 'graphics' mode with the specified width, height, and color depth (in bits)..."
Graphics3D..... Sets 3D Graphics mode...
GraphicsBuffer..... Use this command to get which buffer Blitz is currently writing to...
GraphicsDepth ..... This command will tell you the color depth of the current graphics mode...
GraphicsHeight ..... "This command will tell you the height, in pixels, of the current graphics mode..."
GraphicsWidth..... "This command will tell you the width, in pixels, of the current graphics mode..."
HandleImage ..... "When an image is loaded with LoadImage, the image handle (the location within the image where the image is 'drawn from') is always defaulted to the top left corner (coordinates 0,0)..."
HandleSprite..... Sets a sprite handle...
Hex..... Converts integer values into hexidecimal values...
HideEntity ..... "Hides an entity, so that it is no longer visible, and is no longer involved in collisions..."
HidePointer ..... "HidePointer is for use in windowed display modes, and simply hides the Windows pointer when it is moved over your game's window..."
HostIP..... Returns an integer IP address for the specified host...
HostNetGame ..... This allows you to bypass the 'standard' networked game dialog box (normally using StartNetGame) and start a hosted game directly...
HWMultiTex ..... Enables or disables hardware multitexturing...
HWTexUnits..... Returns the number of hardware texturing units available...
If..... Use this to check the value of a variable or to see if a condition is true or false...
ImageBuffer..... There are 1000 reasons for this command...
ImageHeight ..... Use this command and ImageWidth to return the size of the given image (using the handle assigned when the image was loaded with LoadImage) in pixels...
ImageRectCollide .... There are many times when you need to see if an image has collided with (or is touching) a specific rectangular area of the screen...
ImageRectOverlap... There are many times when you need to see if an image has collided with (or is touching) a specific rectangular area of the screen...
ImagesCollide ..... This is THE command to get pixel-perfect collisions between images...
ImagesOverlap ..... "This is a very fast, simple collision type command that will allow you to determine whether or not two images have overlapped each other..."
ImageWidth..... Use this command and ImageHeight to return the size of the given image (using the handle assigned when the image was loaded with LoadImage) in pixels...
ImageXHandle..... It is occasionally useful to determine the location of an image's image handle...
ImageYHandle..... It is occasionally useful to determine the location of an image's image handle...
Include ..... Includes the contents of the specified ...
Input ..... This command will retrieve a string value from the user with an optional prompt on the screen (if not in a graphic mode) or on the current drawing buffer being used by the program...
Insert..... "I'm not sure the practical usage of this command, but basically, you can control where you INSERT the current TYPE object into the TYPE collection..."
Instr ..... This command will allow you to search for an occurance of a string within another string...
Int ..... Converts the value to the nearest integer...
JoinNetGame ..... "Use this command to join a network game, bypassing the dialog box normally endured with the StartNetGame command..."
JoyDown ..... This command (and its counterparts KeyDown and MouseDown) is used to detect if a joystick button is being held down...
JoyHat ..... JoyHat returns the state of a joystick 'hat' or 'pov' (point-of-view) control...
JoyHit ..... This command returns the number of times a specified joystick button has been hit since the last time you called the JoyHit() command...
JoyPitch ..... Returns the pitch value of a joystick...
JoyRoll..... Returns the roll value of a joystick...
JoyType ..... This command returns the type of joystick that is currently connected to the computer...
JoyU..... Returns a float value between -1 and 1 that represents the U value of a joystick's output...
JoyUDir ..... Returns an integer value between -1 and 1 that represents the U value of a joystick's output...

JoyV ..... Returns a float value between -1 and 1 that represents the V value of a joystick's output...
JoyVDir ..... Returns an integer value between -1 and 1 that represents the V value of a joystick's output...
JoyX ..... This command returns the value of the x-axis of the joystick...
JoyXDir ..... This command returns the direction of the x-axis of the joystick being pressed...
JoyY ..... This command returns the value of the x-axis of the joystick...
JoyYaw ..... Returns the yaw value of a joystick...
JoyYDir ..... This command returns the direction of the Y-axis of the joystick being pressed...
JoyZ ..... This command returns the value of the x-axis of the joystick...
JoyZDir..... This command returns the direction of the Z-axis of the joystick being pressed...
KeyDown ..... This command (similar to its counterparts MouseDown and JoyDown) is used to detect if a key is being held down...
KeyHit ..... This command returns the number of times a specified key has been hit since the last time you called the KeyHit() command...
Last ..... "If you haven't read up on the TYPE command, you might want to do so before continuing..."
Left..... Use this command to get a certain number of the leftmost letters of a string...
Len ..... "This will let you determine the length (number of letters, spaces, characters, numbers, etc) inside a string..."
LightColor ..... Sets the color of a light...
LightConeAngles ..... Sets the 'cone' angle for a 'spot' light...
LightMesh..... Performs a 'fake' lighting operation on a mesh...
LightRange ..... Sets the range of a light...
Line ..... "This command draws a line, in the current drawing color, from one point on the screen to another (from the x,y to x1,y1 location)..."
LinePick..... "Returns the first entity between x,y,z to x+dx,y+dy,z+dz..."
Load3DSound ..... Loads a sound and returns its handle for use with EmitSound...
LoadAnimImage..... "While similar to LoadImage, the LoadAnimImage loads a single image that is made up of 'frames' of seperate images (presumably to be used as frames of a graphic animation)..."
LoadAnimMesh ..... "LoadAnimMesh, similar to LoadMesh, Loads a mesh from an ..."
LoadAnimSeq ..... Appends an animation sequence from a file to an entity...
LoadAnimTexture ... Loads an animated texture from an image file and returns the texture's handle...
LoadBrush ..... "Creates a brush, loads and assigns a texture to it, and returns a brush handle..."
LoadBSP..... Loads a BSP model and returns its handle...
LoadBuffer ..... "There are a hundred and one uses for this command, but probably most often used would be to display a title screen or some other 'one time viewing only' image to the front buffer (as in our example)..."
LoaderMatrix ..... Sets a matrix for 3d files loaded with the specified file extension...
LoadFont ..... Loads a font and returns a font handle...
LoadImage..... This command loads an image from disk and assigns it a file handle...
LoadMD2..... Loads an md2 entity and returns its handle...
LoadMesh ..... "LoadMesh, as the name suggests, Loads a mesh from an ..."
LoadSound..... This command loads a sound file into memory...
LoadSprite ..... "Creates a sprite entity, and assigns a texture to it..."
LoadTerrain ..... Loads a terrain from an image file and returns the terrain's handle...
LoadTexture ..... Load a texture from an image file and returns the texture's handle...
Local ..... This command is probably just here for compatibility with other BASIC languages...
Locate ..... Sometimes you want to place the PRINT and Input$ commands at a specific location on the screen...
LockBuffer..... "After you use LockBuffer on a buffer, the only graphics commands you can use are the read/write pixel commands ReadPixel, WritePixel, ReadPixelFast, WritePixelFast, CopyPixelFast, and CopyPixel..."
Log ..... Natural logarithm of x...
Log10 ..... Common logarithm of x...
LoopSound..... This command sets up play back a sound file (...
Lower..... This will take a string and convert it all to lower case letters...

LSet..... "If you have a string that is say, 10 letters long, but you want to make it a full 25 letters, padding the rest of the string with spaces, this command will do so, leaving the original string value left justified..."
MaskImage..... "Blitz Basic assumes that when you load an image (using LoadImage or LoadAnimImage) for drawing (using DrawImage command), you want the color black (RGB color 0,0,0) on your image to be transparent (or see through)..."
MD2Animating..... "Returns 1 (True) if md2 is currently animating, 0 (False) if not..."
MD2AnimLength .... Returns the animation length of an md2 model...
MD2AnimTime..... Returns the animation time of an md2 model...
MeshDepth..... Returns the depth of a mesh...
MeshesIntersect..... Returns true if the specified meshes are currently intersecting...
MeshHeight ..... Returns the height of a mesh...
MeshWidth ..... Returns the width of a mesh...
Mid..... Use this command to grab a set of characters from within a string...
MidHandle..... "When an image is loaded with LoadImage, the image handle (the location within the image where the image is 'drawn from') is always defaulted to the top left corner (coordinates 0,0)..."
Millisecs ..... This command will return to you the system timer value in milliseconds...
Mod..... "Basically, this will divide your number as many times as possible by the divisor, then return you the remaining amount..."
ModifyTerrain..... Sets the height of a point on a terrain...
MouseDown ..... This command (and its counterparts KeyDown and JoyDown) is used to detect if a mouse button is being held down...
MouseHit ..... This command returns the number of times a specified mouse button has been hit since the last time you called the MouseHit() command...
MouseX..... This command returns the X location of the mouse on the screen...
MouseXSpeed ..... Often you'd like to find the difference between where the mouse WAS to where it is NOW...
MouseY..... This command returns the Y location of the mouse on the screen...
MouseYSpeed ..... Often you'd like to find the difference between where the mouse WAS to where it is NOW...
MouseZ..... MouseZ returns the current position of the mouse wheel on a suitable mouse...
MouseZSpeed ..... "MouseZSpeed returns -1 if the mousewheel on a suitable mouse is being rolled backwards (towards user), 0 if it is not being moved, and 1 if it is being rolled forwards..."
MoveEntity ..... Moves an entity relative to its current position and orientation...
MoveMouse..... "Although the mouse isn't visible on the screen, the mouse location is still being tracked and you can attach a graphic to it..."
MovieHeight ..... Returns the height of a movie...
MoviePlaying..... Returns True if the specified movie is playing...
MovieWidth..... Returns the width of a movie...
NameEntity..... Sets an entity's name...
NetMsgData..... "First off, this ONLY works when you have joined a network game via StartNetGame or JoinNetGame and you have created a player via CreateNetPlayer (you must create a player, even if it is just to lurk)..."
NetMsgFrom..... "First off, this ONLY works when you have joined a network game via StartNetGame or JoinNetGame and you have created a player via CreateNetPlayer (you must create a player, even if it is just to lurk)..."
NetMsgTo ..... "First off, this ONLY works when you have joined a network game via StartNetGame or JoinNetGame and you have created a player via CreateNetPlayer (you must create a player, even if it is just to lurk)..."
NetMsgType ..... "First off, this ONLY works when you have joined a network game via StartNetGame or JoinNetGame and you have created a player via CreateNetPlayer (you must create a player, even if it is just to lurk)..."
NetPlayerLocal..... "First off, this ONLY works when you have joined a network game via StartNetGame or JoinNetGame and you have created a player via CreateNetPlayer (you must create a player, even if it is just to lurk)..."
NetPlayerName..... "First off, this ONLY works when you have joined a network game via StartNetGame or JoinNetGame and you have created a player via CreateNetPlayer (you must create a player, even if it is just to lurk)..."

New ..... "If you aren't familiar with the TYPE command, please refer to that before reading about this command..."
Next..... This command closes the FOR ...
NextFile..... This command will return the NEXT file or folder from the currently open directory (use ReadDir to open the desired folder for reading)...
Not ..... The NOT operator is used to determine if a condition is FALSE instead of TRUE...
Null ..... Designates a Null Type object...
OpenFile ..... This command opens the designated file and prepares it to be updated...
OpenMovie ..... "Movie support relies on DirectShow, so you will need to ensure the correct drivers are installed..."
OpenTCPStream ..... Use this command to open up a TCP/IP stream to the designated server and port...
Or..... A logical expression to return a boolean TRUE or FALSE comparison of expressions or values...
Origin..... This command sets a point of origin for all subsequent drawing commands...
Oval ..... Use this to draw an oval shape at the screen coordinates of your choice...
PaintEntity..... Paints a entity with a brush...
PaintMesh..... Paints a mesh with a brush...
PaintSurface ..... Paints a surface with a brush...
PauseChannel ..... "When you are playing a sound channel, there may come a time you wish to pause the sound for whatever reason (like to play another sound effect)..."
PeekByte ..... Reads a byte from a memory bank and returns the value...
PeekFloat ..... Reads a float from a memory bank and returns the value...
PeekInt..... Reads an int from a memory bank and returns the value...
PeekShort ..... Reads a short from a memory bank and returns the value...
Pi..... Returns the value of Pi to 6 digits (3...
PickedEntity ..... Returns the entity 'picked' by the most recently executed Pick command...
PickedNX..... Returns the x component of the normal of the most recently executed Pick command...
PickedNY..... Returns the y component of the normal of the most recently executed Pick command...
PickedNZ..... Returns the z component of the normal of the most recently executed Pick command...
PickedSurface..... Returns the handle of the surface that was 'picked' by the most recently executed Pick command...
PickedTime..... Returns the time taken to calculate the most recently executed Pick command...
PickedTriangle ..... Returns the index number of the triangle that was 'picked' by the most recently executed Pick command...
PickedX..... Returns the world x coordinate of the most recently executed Pick command...
PickedY..... Returns the world y coordinate of the most recently executed Pick command...
PickedZ..... Returns the world z coordinate of the most recently executed Pick command...
PlayCDTrack..... Plays a CD track and returns a sound channel...
PlayMusic ..... This command will load and play a music file...
PlaySound..... This plays a sound previously loaded and assigned to a variable using the LoadSound command...
Plot..... ...
PointEntity..... Points one entity at another...
PokeByte..... Writes a byte into a memory bank...
PokeFloat..... Writes a float into a memory bank...
PokeInt ..... Writes an int into a memory bank...
PokeShort ..... Writes a short into a memory bank...
PositionEntity ..... Positions an entity at an absolute position in 3D space...
PositionMesh ..... Moves all vertices of a mesh...
PositionTexture ..... Positions a texture at an absolute position...
Print..... Writes a string to the front buffer (i...
ProjectedX..... Returns the viewport x coordinate of the most recently executed CameraProject...
ProjectedY..... Returns the viewport y coordinate of the most recently executed CameraProject...
ProjectedZ..... Returns the viewport z coordinate of the most recently executed CameraProject...
Rand ..... "Unlike the RND command, this command actually returns only integer values..."
Read..... This reads the next value in a set of Data statements...

ReadAvail ..... "In the case of file streams, this reflects how much data is internally buffered..."
ReadByte ..... "Once you've opened a disk file (or stream) for reading, use this command to read a single byte at a time from the file/stream..."
ReadBytes..... You can read the contents of a disk file (or stream) to a memory bank using this command...
ReadDir ..... "In file operations, you will often need to parse through a directory/folder and retrieve unknown filenames and other folders from it..."
ReadFile..... This command opens the designated filename and prepares it to be read from...
ReadFloat ..... "Once you've opened a disk file (or stream) for reading, use this command to read a single floating point number from the file..."
ReadInt..... "Once you've opened a disk file (or stream) for reading, use this command to read a single integer value from the file..."
ReadLine ..... "Once you've opened a disk file (or stream) for reading, use this command to read a whole line of text from a text file or stream..."
ReadPixel..... Reads a color value from either the current buffer or the specified buffer...
ReadPixelFast..... "Reads a color value from either the current buffer or the specified buffer, and returns it..."
ReadShort..... "Once you've opened a disk file (or stream) for reading, use this command to read a single short integer (16bit) value from the file..."
ReadString..... "Once you've opened a disk file (or stream) for reading, use this command to read a string variable from the file..."
Rect..... This command will draw a rectangle in the current drawing Color starting at the location specified...
RectsOverlap ..... This command will take two rectangular locations on the screen and see if they overlap...
RecvNetMsg..... "First off, this ONLY works when you have joined a network game via StartNetGame or JoinNetGame and you have created a player via CreateNetPlayer (you must create a player, even if it is just to lurk)..."
RecvUDPMsg..... Receives a UDP message into the specified UDP stream...
RenderWorld..... Renders the current scene to the BackBuffer onto the rectangle defined by each cameras CameraViewport( )...
Repeat..... The REPEAT ...
Replace ..... This command will allow you to replace characters within a string with another...
ResetEntity ..... Resets the collision state of an entity...
ResizeBank ..... Resizes a previously created memory bank...
ResizeImage..... "Similar to ScaleImage, but uses pixel values instead of percentages..."
Restore..... "When using Data statements to store large blocks of constants for use with the Read command, it is necessary to denote the start of the Data with a ..."
ResumeChannel..... ResumeChannel is used to continue the playing of a sound sample or music track on the given channel after you have temporarily halted playback on that channel (via PauseChannel)...
Return..... "When called inside a FUNCTION structure, the RETURN command immediately returns from the function back to the calling code..."
Right ..... You can retrieve a certain number of characters from the rightmost side of a string...
Rnd ..... This returns either a floating point or integer number of a random value falling between the start and end number...
RndSeed..... Returns the current random number seed value...
RotateEntity ..... Rotates an entity so that it is at an absolute orientation...
RotateImage ..... "I'm going to start this description off with: This command is not fast enough to render rotations in real time! Now, the purpose of this command is to rotate an image a specified number of degrees..."
RotateMesh..... Rotates all vertices of a mesh by the specified rotation...
RotateSprite..... Rotates a sprite...
RotateTexture..... Rotates a texture...
RSet ..... "If you have a string that is say, 10 letters long, but you want to make it a full 25 letters, padding the rest of the string with spaces, this command will do so, leaving the original string value right justified..."
RuntimeError..... "When doing your own error trapping, use this command to pop up a fatal error and close the program..."
Sar..... This performs a right binary shift on the value the specified number of times...

SaveBuffer ..... "Typically, this is used to take a screen snapshot..."
SaveImage..... Saves an image or one of its frames to hard drive...
ScaleEntity..... Scales an entity so that it is of an absolute size...
ScaleImage..... Use this command to rescale an image to a new size using a floating point percentage (1...
ScaleMesh ..... Scales all vertices of a mesh by the specified scaling factors...
ScaleSprite ..... Scales a sprite...
ScaleTexture ..... Scales a texture by an absolute amount...
ScanLine ..... "If for some reason you need to know the current scanline location of the drawing system, here is how you get it..."
SeedRnd..... Computer random number generators are not truly random...
SeekFile..... This command allows the position in a file to be changed...
Select..... "This command allows you to set up a selection structure that, based on the value of the variable you feed it, will execute different commands in different CASEs..."
SendNetMsg..... "First off, this ONLY works when you have joined a network game via StartNetGame or JoinNetGame and you have created a player via CreateNetPlayer (you must create a player, even if it is just to lurk)..."
SendUDPMsg..... Transmits all the data written to the UDP stream to the specified IP address and port...
SetAnimKey..... Sets an animation key for the specified entity at the specified frame...
SetAnimTime..... SetAnimTime allows you to manually animate entities...
SetBuffer..... Use this command to set the current drawing buffer...
SetCubeFace ..... Selects a cube face for direct rendering to a texture...
SetCubeMode ..... Set the rendering mode of a cubemap texture...
SetEnv..... Sets an environment variable...
SetFont..... This activates a TrueType font previously loaded into memory (though the LoadFont command) for future use with printing commands such as Text...
SetGamma ..... SetGamma allows you to modify the gamma tables...
SetGfxDriver ..... Some computers may have more than one video card and/or video driver installed (a good example is a computer system with a primary video card and a Voodoo2 or other pass-through card)...
Sgn ..... "This function is used to determine whether a number or value is greater than 0, equal to 0 or less than 0..."
Shl ..... This performs a left binary shift on the value the specified number of times...
ShowEntity ..... Shows an entity...
ShowPointer ..... "ShowPointer is for use in windowed display modes, and simply shows the Windows pointer after it's been hidden (via HidePointer)..."
Shr ..... This performs a left binary shift on the value the specified number of times...
Sin ..... Sine of an angle...
SoundPan..... Use this command to pan your sound effect between the left and right speakers (or restore the panning to the center)...
SoundPitch..... Alters the pitch of a sound previously loaded with the LoadSound command...
SoundVolume ..... Alter the playback volume of your sound effect with this command...
SpriteViewMode..... Sets the view mode of a sprite...
Sqr ..... This command will return the square root of a specified value...
StartNetGame..... "Displays a Windows dialog with option to join or start a new multiplayer network game, via modem, serial connection or TCP/IP (Internet)..."
Step ..... Use this to tell your FOR ...
Stop ..... "If running the program in debug mode, it this command halts the program and returns you to the editor where you can then step through your code, view variables, etc..."
StopChannel ..... This command replaced StopSound in the latter versions of Blitz Basic...
StopNetGame..... Use this command to terminate the network game currently in progress (started with the StartNetGame() command)...
Str ..... Use this command to transform an numeric value to a string value for use with string commands...
String ..... This makes a string filled with the specified occurances of the designated string...
StringHeight ..... "This will return the size, in pixels, the height of the indicated string..."
StringWidth..... "This will return the size, in pixels, the width of the indicated string..."

SystemProperty ..... SystemProperty is used to 'find out' certain system-specific things that are external to the currently running program...
Tan..... Tangent of an angle...
TCPStreamIP ..... Returns the integer IP address of the specified tcp_stream...
TCPStreamPort..... Returns the port number of the specified TCP stream...
TCPTimeouts..... read_millis allows you to control how long reading data into a TCP stream can take before causing an error...
TerrainDetail ..... Sets the detail level for a terrain...
TerrainHeight..... "Returns the height of the terrain at terrain grid coordinates x,z..."
TerrainShading ..... Enables or disables terrain shading...
TerrainSize ..... Returns the grid size used to create a terrain...
TerrainX..... Returns the interpolated x coordinate on a terrain...
TerrainY ..... Returns the interpolated y coordinate on a terrain...
TerrainZ ..... Returns the interpolated z coordinate on a terrain...
Text..... Prints a string at the designated screen coordinates...
TextureBlend ..... Sets the blending mode for a texture...
TextureBuffer..... Returns the handle of a texture's drawing buffer...
TextureCoords..... Sets the texture coordinate mode for a texture...
TextureFilter ..... Adds a texture filter...
TextureHeight..... Returns the height of a texture...
TextureName ..... Returns a texture's absolute filename...
TextureWidth ..... Returns the width of a texture...
TFormedX ..... "Returns the X component of the last TFormPoint, TFormVector or TFormNormal operation..."
TFormedY ..... "Returns the Y component of the last TFormPoint, TFormVector or TFormNormal operation..."
TFormedZ ..... "Returns the Z component of the last TFormPoint, TFormVector or TFormNormal operation..."
TFormFilter..... This command will enable or disable bi-linear filtering on images that are convoluted (altered) by commands like TFormImage and RotateImage...
TFormImage..... Transforms an image based on a 2x2 matrix...
TFormNormal ..... Transforms between coordinate systems...
TFormPoint ..... Transforms between coordinate systems...
TFormVector..... Transforms between coordinate systems...
Then..... Used in an IF statement to denote the end of the conditional to be checked...
TileBlock..... Similar to TileImage but ignores transparency...
TileImage..... "If you want to make a starfield or other easy tiled background, this is YOUR command..."
To..... Use the TO command to tell your FOR ...
TotalVidMem ..... "TotalVidMem () simply returns the total available memory on a graphics card, in bytes..."
TranslateEntity..... Translates an entity relative to its current position and not its orientation...
TriangleVertex ..... Returns the vertex of a triangle corner...
Trim..... This function removes leading and trailing spaces from the specified string...
TrisRendered..... Returns the number of triangles rendered during the most recent RenderWorld...
TRUE..... TRUE is a keyword to denote a positive result in a conditional statement...
TurnEntity..... Turns an entity relative to its current orientation...
Type..... "If you know C programming, a TYPE is basically a STRUCT in Blitz Basic..."
UDPMsgIP..... Returns the integer IP address of the sender of the last UDP message received...
UDPMsgPort ..... Returns the port of the sender of the last UDP message received...
UDPStreamIP ..... Returns the integer IP address of the specified udp_stream...
UDPStreamPort..... Returns the port number of the specified UDP stream...
UDPTimeouts ..... recv_millis allows you to control how long the RecvUDPMsg() function will wait for a new message...
UnlockBuffer ..... "After you use LockBuffer on a buffer, the only graphics commands you can use are the read/write pixel commands ReadPixel, WritePixel, ReadPixelFast, and WritePixelFast..."
Until ..... This portion of the REPEAT ...

UpdateGamma ..... UpdateGamma should be used after a series of @SetGamma commands in order to effect actual changes...
UpdateNormals..... Recalculates all normals in a mesh...
UpdateWorld..... "Animates all entities in the world, and performs collision checking..."
Upper..... This command takes the given string and converts it entirely to upper case...
VectorPitch..... Returns the pitch value of a vector...
VectorYaw..... Returns the yaw value of a vector...
VertexAlpha ..... "Returns the alpha component of a vertices color, set using @VertexColor..."
VertexBlue..... Returns the blue component of a vertices color...
VertexColor ..... Sets the color of an existing vertex...
VertexCoords..... Sets the geometric coordinates of an existing vertex...
VertexGreen ..... Returns the green component of a vertices color...
VertexNormal ..... Sets the normal of an existing vertex...
VertexNX..... Returns the x component of a vertices normal...
VertexNY..... Returns the y component of a vertices normal...
VertexNZ ..... Returns the z component of a vertices normal...
VertexRed..... Returns the red component of a vertices color...
VertexTexCoords .... Sets the texture coordinates of an existing vertex...
VertexU..... Returns the texture u coordinate of a vertex...
VertexV..... Returns the texture v coordinate of a vertex...
VertexW..... Returns the texture w coordinate of a vertex...
VertexX..... Returns the x coordinate of a vertex...
VertexY..... Returns the y coordinate of a vertex...
VertexZ..... Returns the z coordinate of a vertex...
Viewport ..... "There are MANY MANY times you want to draw graphics (aliens, ships, etc) ONLY on a certain area of the screen while leaving the other areas alone..."
VWait..... "VWait will cause the CPU to wait for the next (or specified number of) vertical blank event on the monitor There are times when you can draw too fast, and your drawing operations happen so fast that you get undesireable effects..."
WaitJoy..... This command makes your program halt until a jpystick button is pressed on the joystick...
WaitKey..... This command makes your program halt until a key is pressed on the keyboard...
WaitMouse..... This command makes your program halt until a mouse button is pressed on the mouse...
WaitTimer ..... Use this in conjunction with the CreateTimer command...
WBuffer ..... Enables or disables w-buffering...
Wend..... This is the command that tells program execution to branch to the beginning of the WHILE/WEND loop at the WHILE command...
While..... The WHILE/WEND loop is used when you wish to execute a series of commands multiple times based on whether a condition is true or not...
Windowed3D ..... Windowed3D returns true if the host machine's selected graphics card is capable of rendering 3D graphics in a window using the current desktop colour depth...
Wireframe ..... Enables or disables wireframe rendering...
Write..... Writes a string to the front buffer (i...
WriteByte ..... "Once you've opened a disk file (or stream) for reading, use this command to write a single byte at a time to the file/stream..."
WriteBytes..... You can write the contents of a memory bank to a file on disk (or stream) using this command...
WriteFile..... This command opens the designated filename and prepares it to be written to…
WriteFloat ..... "Once you've opened a disk file (or stream) for writing, use this command to write a single floating point number to the file..."
WriteInt..... "Once you've opened a disk file (or stream) for writing, use this command to write a single integer value to the file..."
WriteLine ..... "Once you've opened a disk file (or stream) for writing, use this command to right a whole line of text to the file..."
WritePixel..... Writes a color value to either the current buffer or the specified buffer...
WritePixelFast..... Writes a colour value to either the current buffer or the specified buffer...

WriteShort..... "Once you've opened a disk file (or stream) for writing, use this command to write a single short integer (16 bit) value to the file..."

WriteString..... "Once you've opened a disk file (or stream) for writing, use this command to write a string variable to the file..."

Xor..... "Often used for lightweight (meaning worthless ;) encryption, this will take two values and perform an exclusive OR with each bit following the basic rules of XOR..."

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