

# **About the 3D-Ware 2.0 demo**

This demo enclosed with **VR Madness 1996** has been created to show you some of the capabilities of the all new version 2.0 of 3D-Ware. Version 2.0 is supplied initially with DOS, Windows (3.1, NT and 95), and OS/2 versions. Versions for the PowerPC, PowerMac and other platforms will follow. The demo is non interactive.

## **About the 3D-Ware v2.0 Library**

### **Release date**

### **How can I get more information ?**

### **Contact Information**

### **Keystrokes in this demo**

3D-Ware is a Trademark of Virtek International Corp. All other Trademarks acknowledged.

## **Release Date of the 3D-Ware v2.0 Libraries**

3D-Ware v2.0 is currently going through a beta test program and the projected date for the final release is first Quarter 1996.

The 3D-Ware v2.0 tools will be released at a later date.

**How can I get more information ?**

# About the 3D-Ware v2.0 Libraries

The 3D-Ware v2.0 Library has the following features :



## **Written in 100% Protected mode assembler code**

3D-Ware v2.0 has been written specifically in 100% Protected Mode Assembler code for the ultimate performance.



## **A full Z-Buffer**

3D-Ware v2.0 has a full true Z-Buffer. A Z-Buffer sorts each and every pixel into depth order in the Z plane (going into the screen). This allows very easy definition and use of virtually any 3D object without the programmer or artist having to spent valuable time deciding which order the individual polygons have to be drawn.



## **3D Graphics card acceleration**

High speed 3D accelerators are automatically detected and used if available.



## **Virtual Reality Headset support**

The major VR Headsets and tracker units are supported under 3D-Ware v2.0 and both Mono and Stereo output is supported.



## **Supported resolutions**

3D-Ware v2.0 can support images up to 64 thousand \* 64 thousand pixels. This is of course not practical for today's display devices and the maximum resolution that can be effectively used depends on the maximum display resolution that Windows, DOS or OS/2 can support.



## **Compiles and links to all popular compilers**

3D-Ware v2.0 has been created in a way that allows any 32bit compiler to compile and link applications to the 3D library.



## **Full object hierarchy**

An object can be defined as a parent object and child objects can be attached to the parent. As an example, if a car driving simulation is produced, the car body can be defined as a parent object, and each wheel can be attached as a child object. The wheels can be rotated and offset from the body and each time the car body is moved or rotated, the wheels move and are rotated correctly. Please note, that this feature is optional and does not have to be used if it is not required.



## **Full Alpha buffer**

An alpha buffer can be used to make polygons semi transparent. A shadow from an object is a good use of this feature



## **Full color range**

3D-Ware v2.0 can use 8bit color, 16 bit color and 24 bit color



### **Flat shaded polygons**

Flat shaded polygons are polygons are drawn using a single color.



### **Gouraud shaded polygons**

Gouraud shading is a technique where each polygon drawn is smoothly shaded across its surface.



### **Texture Mapped polygons**

Texture mapping is a technique where a bitmap image is applied to a polygon.



### **Environment Mapped polygons**

Environment mapping is a technique which gives a polygon a chrome like reflective surface.



### **Bump Mapped polygons**

Bump mapping is a technique that gives the graphic impression of giving a bumpy surface to a polygon.



### **Gouraud shaded Texture Mapped Polygons**

A combination of the Gouraud and the Textured polygons.



### **Phong shaded polygons**

Phong shading allows a polygon to be smooth shaded across its surface. The difference between Gouraud and Phong shading is that Phong shading produces a higher quality end result.



### **Light Sources - Ambient**

Ambient light allows surfaces not directly illuminated to receive some level of illumination.



### **Light Sources - Spot**

Spot lights provide of cone of light which can be directed onto objects in the scene.



### **Light Sources - Directional**

A good example of a Directional light source is the sun. A Directional light has an intensity and a direction from an infinitely distant source.



### **Light Sources - Omni**

A good example of an Omni lightsource is a light bulb. An Omni light has a defined position and the light radiates omni-directionally, hence the shortened name Omni.



### **Sound support**

3D-Ware v2.0 will support the linking of sounds to objects.



### **And lots more**

There are of course lots more powerful features in the libraries. Described above are just some of the major points.



## **About Virtek**

Virtek International Corporation was formed in the USA in early 1993 by Phil Allsopp and Niels Jensen, with the express intention to bring high performance 3D-Graphics to the desktop. Prior to the launch of 3D-Ware the only way to get high performance 3D Graphics facilities was to invest in an expensive graphics workstation. .

Phil was previously the joint founder, joint largest shareholder, Chairman and Director of Digital Image Design Limited. Digital Image Design (DID) are the developers of a number of best selling No. 1 hit games including F-29 Retaliator, Epic, Robocop 3D, TFX, Inferno and EFA2000 (TFX 2).

## Contact Details

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## How To Use This Demo

You can use the following keys when running the demo :



A Move the light source (sun) clockwise around the world



S Move the light source (sun) anti-clockwise around the world



W Move the light source (sun) upwards



Z Move the light source (sun) downwards



P Increase the light intensity



L Decrease the light intensity



Keypad + Zoom into the currently selected aircraft



Keypad - Zoom out from the currently selected aircraft



1 Select the AH-64A Apache



2 Select the MIG-29



3 Select the F-16 Falcon



T Sweep the viewer 90 degrees around the current aircraft



R Sweep the viewer 360 degrees around the current aircraft



## **How To Get More Information**

The easiest way to get more information is to complete the reply card that is supplied in the book. We will then mail or email information to you as it becomes available. The second method is to access the Virtek World Wide Web (WWW) site for the latest news. Another way to get more information is to contact Virtek directly and request the information you require.

### **Contact Details**



