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D/AVE Demo

Summary

D/AVE Demo

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Introduction

Brief description of the D/AVE Demo.

The D/AVE Demo is a small presentation of the D/AVE features. The demo collection consists of 10 graphical demonstrations. Each of them is also included as C/C++ source code.

Control Keys

Demo control keys

Main Menu Development Board

<code>hold sw3</code>	to bring up main menu
<code>click sw0</code>	to move cursor up
<code>click sw3</code>	to move cursor down
<code>click sw2</code>	to activate selection
<code>click sw2, sw1</code>	when demo title is selected to

switch to previous or next demo
resp.

Using the touchpad (only Cyclone III Edition)

Touch on the left hand side to load the previous demo, touch on the right hand side to load the next demo.

Main Menu SoftDAVE

<code>k</code>	to bring up main menu
<code>up arrow</code>	to move cursor up
<code>down arrow</code>	to move cursor down
<code>right arrow</code>	to activate selection
<code>right/left arrow</code>	when demo title is selected to switch to previous or next demo resp.
<code>select exit & apply</code>	to exit main menu and apply settings.
<code>esc</code>	exit demo

Demo: Windmill

Demonstration of Anti-Aliasing and Subpixel Accuracy.

This demo shows the effect of anti-aliasing versus non-anti-aliasing. The qualitative difference of having such features is made fully clear by rendering the left part of the image with anti-aliasing and subpixel accuracy and the other part with only subpixel accuracy.

Additional control keys Development Board

<code>click sw0</code>	switch anti-aliasing on/off
<code>hold sw1</code>	freeze frame

Additional control keys SoftDAVE

<code>up arrow</code>	switch anti-aliasing on/off
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Demo: Dashboard

Demonstration of applied high quality vector graphics in an automotive application.

In this demo most of the elements are drawn using vector graphics. Exceptions are the fonts, the icons and the small map.

Compared to the usage of bitmap graphics this has the advantage that all elements can be scaled to different sizes without becoming blocky. Furthermore it reduces the memory transfers, because no textures have to be uploaded to the memory. From an application level point of view, the demonstrations shows how flexible a digital dashboard can be.

The main menu offers a switch to leave the automatic mode. In this manual mode you can freely configure your dashboard with the following keys.

Additional control keys Development Board

<code>click sw0</code>	select next dashboard item to configure
<code>click sw1</code>	select previous dashboard item to configure
<code>click sw2</code>	change dashboard item property
<code>hold sw2</code>	accelerate
<code>hold sw3</code>	bring up the main menu

Additional control keys SoftDAVE

<code>up arrow</code>	select next dashboard item to configure
<code>left arrow</code>	select previous dashboard item to configure
<code>right arrow</code>	change dashboard item property
<code>j</code>	accelerate
<code>k</code>	bring up the main menu

Demo: Trippy Circles

Demonstration of additive blending.

A nice looking demo that shows several semi-transparent circles. The circles are blended additive where they overlap each over.

Demo: Mapdemo

Demonstration of a map drawn by D/AVE.

D/AVE is designed to fulfill the specific requirements of map rendering in an optimal way. A tessellation of more complex graphical primitives e.g. polylines with round connection into triangles is not required. D/AVE is able to render most of these base primitives in a single pass, which keeps the memory bandwidth consumption much lower.

Additional control keys Development Board

click sw0 switch anti-aliasing on/off

Additional control keys SoftDAVE

up arrow switch anti-aliasing on/off

Demo: Menudemo

Demonstration of a digital panel showing a large menu.

Topic of this demo is to draw a control panel like it is used in entertainment systems. The main components of this demo are drawn using textures.

The main menu offers a switch to leave the automatic mode. In this manual mode you can navigate freely through the menu.

Additional control keys Development Board

click sw0 move menu cursor up
hold sw0 change menu
hold sw2 choose menu item (only "see a movie" in
menu2 is chooseable)
click sw3 move menu cursor down

Additional control keys SoftDAVE

up arrow move menu cursor up
down arrow move menu cursor down
g change menu
j choose menu item (only "see a movie" in
menu2 is chooseable)

Demo: Line Ends

Demonstration showing round line caps.

This demo demonstrates how to use line caps. Line caps are used to add a natural touch to your images. It can help to get rid of an angled impression to a more modern look.

Demo: Line Ends Feedback

Demonstration showing an extended version of the Line Ends demo.

This demo shows round line caps and is based on the Line Ends demo. But it uses blending techniques including old frame buffers to get nice looking effects.

Demo: Eye Logo

Demonstration of Vector Graphics

The logo that is drawn in this demo fully consists of rings, circles and a triangle. Instead of textures, solid colors, patterns and gradients are used. These patterns and gradients can also have alpha values. Due to using pure vector graphics, the logo can be displayed in every size without becoming blocky.

Demo: Perspective Map

Demonstration of Perspective Blit Extension

On the left side in this demo a map is directly rendered by D/AVE (see [Demo: Mapdemo](#)). This rendered content is blited in perspective manner to the right side of the window.

Additional control keys Development Board

`click sw0` switch anti-aliasing on/off

Additional control keys SoftDAVE

`up arrow` switch anti-aliasing on/off

Demo: Pattern Rings

Demonstration of patterns which are used to fill primitives

In this demo all rings are filled with a pattern controlled by a bit-string.

Additional control keys Development Board

`click sw0` switch anti-aliasing on/off
`hold sw1` freeze frame

Additional control keys SoftDAVE

`up arrow` switch anti-aliasing on/off

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