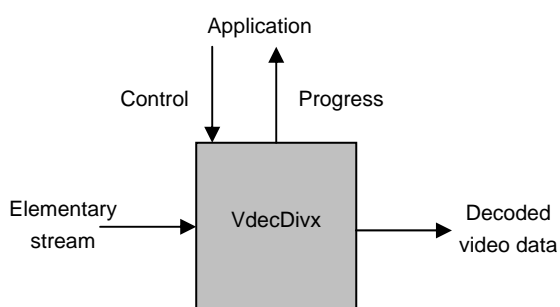


VdecDivx

Introduction

VdecDivx is a high-performance, TSSA-compliant software decoder library that decodes DivX 3, DivX 4 and DivX 5 streams. The DivX video standard is based primarily on the MPEG-4, ISO/IEC 14496-2, standard although DivX 3.x has some differences.



Key Features

- Decodes DivX 3.11, DivX 4.12, DivX 5.x and XviD video streams,
- Supports Portable and Home Theatre Profiles,
- Capability for decoding HD streams,
- Decodes Real-time HD on pnx1700,
- Supports graceful degradation allowing the application to skip the decoding of specified frames to allow smooth playback of high-bitrate streams,
- Activates post processing by setting a level from 0 to 99. These levels are defined by DivX Networks.

VdecDivx Decoder



General Information

The VdecDivx component takes an elementary DivX video stream typically from AVI file parser such as AviRead. It decodes video and produces output in planar or semi-planar video format. Post processing may optionally be configured. The component can be built for both pnx1500 and pnx1700.

Documentation

VdecDivx API user documentation is available with the MPTK release.

Licensing

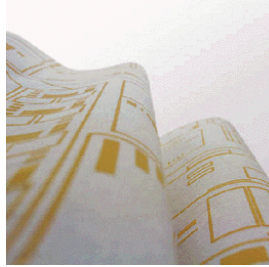
The use of this component requires a license from DivX networks.

Optimization

pnx1500 code has been optimized for the pnx1700.

VdecDivx

VdecDivx Decoder



www.semiconductors.philips.com

Technical Information

Memory Usage

Memory	pnx1500 (bytes)	pnx1700 (bytes)
Static	158250	79125
Text	376303	356896
Dynamic		
<ul style="list-style-type: none"> ▪ when planar output is enabled 	351093	351093
<ul style="list-style-type: none"> ▪ when semi-planar output is enabled 	1337717	1337717
<ul style="list-style-type: none"> ▪ when planar output and post processing are enabled 	5823531	5823531
<ul style="list-style-type: none"> ▪ when semi-planar output and post processing are enabled 	6810155	6810155

Processor Load

pnx1700

Stream	Format	Res.	Avg Load	Peak Load per 4 Frames*
CinderellaMan_HD.avi	DivX 5	1280x720	197	430
Madagascar_HD.avi	DivX 5	1280x720	165	483
SkeletonKey_HD.avi	DivX 5	1280x720	197	466
b01_divx1_smpte_720x480_311fast_prog_2mbps	DivX 3.11	720 x 480	80	184
b02_divx1_smpte720x480_412_prog_3mbps	DivX 4	720 x 480	78	136
b03_divx1_smpte_720x480_divx51sp_4mbps	DivX 5	720 x 480	87	137
b04_divx1_smpte_720x480_divx51b_4mbps	DivX 5	720 x 480	95	168

* The 'peak load per 4 frames' measurement acknowledges the fact that the load of the video decoder varies from frame to frame, and some number of output buffers (four is common) can be used to buffer over-peak loads. This number reports the highest load measured in this stream when averaged over four successive frames. The Nexperia training material provides more information for those who are interested. This statistic is found to be a useful estimate of the real requirements of the decoder.

pnx1500

Stream	Format	Res.	Avg Load	Peak Load per 4 Frames*
b01_divx1_smpte_720x480_311fast_prog_2mbps	DivX 3.11	720 x 480	78	143
b02_divx1_smpte720x480_412_prog_3mbps	DivX 4	720 x 480	81	125
b03_divx1_smpte_720x480_divx51sp_4mbps.avi	DivX 5	720 x 480	90	151
b04_divx1_smpte_720x480_divx51b_4mbps	DivX 5	720 x 480	101	160

Operating System Usage

Tasks	1 (VDDX)
Semaphores	0
Queues	0
Mutex	0

Other Information

Supported processors – TM1500, TM1700

Built with compiler version–tmcc:v7.1.0 of TCS;v4.61(0042rc10_Windows)

Related TriMedia TSSA Software Components - VdecMpeg4, AviRead, VrendGfxVo, tmDrmDivx

Example programs - exolDivx

Philips Semiconductors is a worldwide company with over 100 sales offices in more than 50 countries. For a complete up-to-date list of our sales offices please e-mail sales.addresses@www.semiconductors.philips.com.

A complete list will be sent to you automatically.

You can also visit our website <http://www.semiconductors.philips.com/sales>

© Koninklijke Philips Electronics N.V. 2006

SCS 77

All rights reserved. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice. No liability will be accepted by the publisher for any consequence of its use. Publication thereof does not convey nor imply any license under patent- or other industrial or intellectual property rights.



Date of release: July 2006

Published in USA