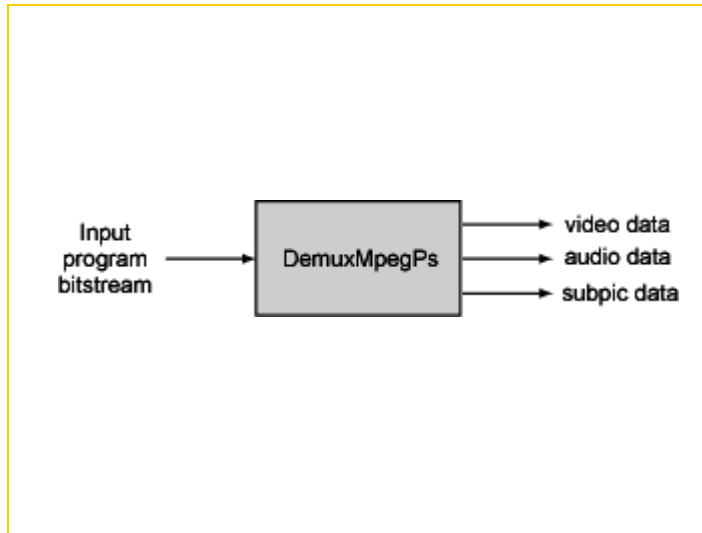
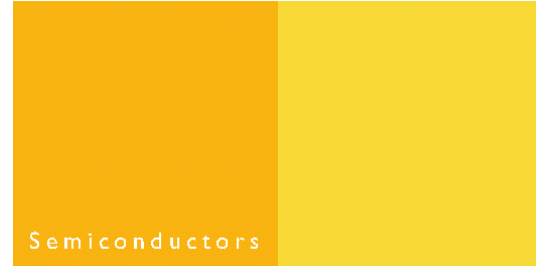


DemuxMpegPs

MPEG Program Stream Demultiplexer

Introduction

DemuxMpegPs is a TSSA compliant software library that takes in an MPEG stream and demultiplexes it into video, audio, subpicture and dynamic navigation data. It can run on all members of the 32-bit Trimedia Processor family.



Key features

- The Demultiplexer supports MPEG1 system stream (as per ISO 11172) and MPEG2 program streams (as per ISO 13838). It also supports AC3, SDDS, DTS and PCM audio.
- Data taken in by the DemuxMpegPs is split into video, audio, subpicture and dynamic navigation data.
- The video, audio and subpicture data are sent to the downstream components using dataout callback functions.
- The dynamic navigation data is filled into three different data structures, one for the PCI information to be used by the renderer, one for the PCI information to be used by the Navigator and the other for the DSI information to be used by the Navigator. This dynamic navigation data is sent to the Presentation Engine using the progress callback function.

General Information

Description

For the TriMedia based DVD player the DemuxMpegPs component accepts input data from the DiscRead component via data-in callback functions. On receiving the data, the DemuxMpegPs component splits the data into video, audio, subpicture and dynamic navigation data. The video, audio and subpicture data are passed on to the respective decoders using data-out functions. The dynamic navigation data is passed to the presentation engine through the progress callback function, supported by TSSA.

This TSSA component has one input and 3 outputs. Not all 3 outputs (video, audio or sub-picture) need to be connected when DemuxMpegPs is used. The DemuxMpegPs will just omit sending a particular data packet to any unused output pin.

Applications

TriMedia based DVD player

Documentation

A detailed document describing the application program interface (API) and the internal behaviour of the component is available.

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Technical Information

Memory Usage

Static Memory (text)	37266 bytes
Static Memory (data)	617 bytes

Note that additional memory is required for buffering of input and output data. The amount is application dependent.

Processor Load

DemuxMpegPs consumes a maximum load of 16 megacycles/second on a system where the clock ratio of CPU:SDRAM is 3:2 and the input bit rate is 9Mbps.

Other Information

Supported Processors	TM1500
Build with Compiler Version	V7.0.1 of SDE V4.3_PR1(0149_Windows)

Example Programs

This library is shipped with an example program, ex01DemuxMpegPS, which demonstrates how to use the streaming interface of the DemuxMpegPs.

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