VERSION DESCRIPTION DOCUMENT (VDD)

For the

MangoX

Multimedia Graph processor

Version 1.3

Prepared by:
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Revision History

Rev	Revision	Originator / Approver	Date
1	v0.1	Itay Chamiel, Yishay Hayardeni	22/2/05
2	v0.2	Itay Chamiel	24/2/05
3	v0.3	Itay Chamiel, Yishay Hayardeni	3/3/05
4	v0.4	Itay Chamiel, Yishay Hayardeni	17/3/05
5	v1.0	Itay Chamiel	27/9/05
6	v1.1	Itay Chamiel	31/1/06
7	v1.3	Itay Chamiel	27/3/06

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1. Scope

1.1. Identification

This Version Description Document (VDD) applies to the "MangoX Multimedia Graph processor" software package. The purpose of this document is to describe the Software packages. Additionally, a list of the open issues, bugs and installation instructions are provided.

1.2. Package Overview

The software package is designed to run on the Mango PCI board family.

The software enables the user to create filter graphs for multimedia processing such as video and audio encoding and decoding, motion estimation, frame resizing etc. The software package includes basic filters used to communicate with PCI boards and some sample codec filters. The user may add their own processing filters and build their own applications.

2. Release notes

This section describes the difference from previous releases and the list of deliverables.

2.1. Release Differences

Updated for Code Composer 3.1.
Various bug fixes.
Added JPEG filters.
Added H.264 encoder.

2.2. Deliverables

2.2.1. Documents:

- VDD – Version description document (This document + SW Release Checklist)
- MangoX User's Manual

2.2.2. Software:

- MangoX host library and DSP application.
- MangoX header files.

- Codec filters: MPEG4, H.263, MPEG2, MP3 and JPEG encoders and decoders. H.264 video encoder only.
- Transfer filters: H2D and D2H data transfer filters.
- Video and Audio input and output filters.
- A sample filter, FilterCustom, for user development.
- MangoX Host demo application which demonstrates usage of the library and the above filters.
- Other basic system libraries and drivers (these drivers must be installed prior to using this system).

2.3. Limitations

The following is the list of the known limitations to the application.

Component	Limitation description	Comments

2.4. History of Changes

The following is the list of the changes to this package.

Version	Date	Change
0.1	22.2.05	Initial pre-release
0.2	24.2.05	Fixes support for Seagull PCI.
0.3	3.3.05	Add Linux support
0.4	17.03.05	Add Solaris support
1.0	27.9.05	First release.
1.1	31.1.06	Updated to CCS 3.1; added JPEG, H.264.
1.2	19.3.06	MangoAV_HW updates, various minor additions; see read1st.txt
1.3	27.3.06	User-selected FPGA files; FilterVideoOut improvement.

3. Package Version Descriptions

3.1. Configuration

This section describes the development tools and version used for this release.

Development tool	Used for	Tool version	Notes
Code Composer Studio (CCS)	TI DSP development and debug	3.1	
DSP/BIOS	DSP Real Time OS	4.9	
Chip Support Library (CSL)	DSP hardware access	As included with Service Pack 1.	
Microsoft Visual Studio	Host client library	6.0	

3.2. Package dependencies and component versions

Library name	Version	Main function
h263decoder_6400	0.91.2	TI H.263 video decoder
h263encoder_6400	0.91.2	TI H.263 video encoder
H264BPENCv114	1.1.4	W&W H.264 video encoder
mp3decoder_ittiam	1.0	Ittiam MP3 audio decoder
mp3encoder_ittiam	1.0	Ittiam MP3 audio encoder
mpeg2dec	1.1	TI MPEG-2 video decoder
mpeg2enc	1.2	TI MPEG-2 video encoder
mp4spdecv271_prs	2.7.1	Prodys MPEG4 video decoder
mp4spencv393_prs	3.9.3	Prodys MPEG4 video encoder
jpegenc_mecoso_nonxdais	1.2	Mecoso JPEG image encoder
jpegdec_mecoso_nonxdais	1.2	Mecoso JPEG image decoder
MangoAV_HW_C6415	1.6	Hardware abstraction layer for C6415 based cards.
MangoAV_HW_DM	1.15	Hardware abstraction layer for DM642 based cards.
VPort	1.8	Video Port driver for DM642
MangoC64Boards	4	Host PCI cards library
MangoBios	1.4	Low-level Host library
h2d_PCI_Stream	3.0	Host - DSP communications
PCI	3.0	DSP PCI access library
Coff	1.12	Host COFF format parser
MangoX	1.3	MangoX Host library
Seagull_PCI	2.2	Seagull PCI board support
Seagull_PMC	2.1	Seagull PMC board support
Lark	1.12	Lark board support

4. Bug report

This section includes the known bugs list and bug-tracking list.

4.1. Known bugs

The following is the list of the known bugs in this version.

Component	Bug description	Comments

4.2. Fixed bugs

The following is the list of bugs fixed in this version.

Component	Fixed bug	Comments

4.3. Bug history

Component	Fixed bug	Fixed from version	Comments

5. Open Issues

This section describes the current open issues for each component of the package.