

MOZART

High Performance Audio Development System
Developer Support Offerings



Support for Audio Developers from MDS' Audio Products Group

Momentum Data Systems' MOZART high performance audio development system provides a hardware platform and software environment for the development of high quality and feature rich home, professional, and theater audio systems.

This hardware platform is combined with the *Open Audio System SDK* to reduce development time and expense, and offer the ultimate in product flexibility.

As a developer of AV Receiver and home theater products, understanding and successfully implementing the various audio standards from Dolby, DTS, and THX is a considerable undertaking. The *Open Audio System SDK* simplifies that task considerably. As every audio equipment manufacturer offers custom capabilities as well as differing hardware, there is sometimes the need for expert help to quickly adapt to the changing technical requirements.

Momentum's team of Audio Developers is available to provide a number of support roles. This datasheet outlines the various types of support available. A complete description of support policies is available from the MDS website.

90 Day Getting Started Support

This support is good for 90 days and is provided at no charge. After the 90 day period Per Incident Support is available.

What is covered:

- Help with installation of hardware and software.
- Questions on the capabilities of Mozart.
- Questions on the capabilities of the Performance Audio Framework.
- Problems running installation verification software or diagnostics software.
- Verification of environment for using development tools with MOZART.
- How to rebuild example programs that are supplied as both source examples and executable. Note that the examples and any source code are provided as-is.
- General questions relating to where to find additional information for programming peripheral chips. Assistance for programming peripheral chips is limited to providing examples of accessing the chips registers and not for programming the peripheral for a specific purpose.
- Questions regarding expansion and external interface connectors.
- Questions on home theater and general audio algorithms as used by the Framework.
- Configuring MDS supplied JTAG based debugger hardware to access MDS processor hardware.

MDS maintains updated documentation, software patches, and specialized knowledge bases for registered MOZART owners, please see the support section of the MDS website.

Getting detailed technical help

The following types of questions are not covered by the 90 Day Getting Started or Per Incident support

- Questions regarding system architecture
- Questions regarding software design
- Questions regarding design trade-offs
- Questions regarding algorithm implementation
- Questions regarding the operation and programming of the processor device(s)
- Questions regarding peripheral programming
- Questions regarding protocol use and programming
- Questions regarding application programming
- Questions regarding custom/non-MDS hardware design
- Questions related to modifying the Performance Audio Framework
- Debug of customer developed processing modules
- Drivers for customer developed I/O hardware and/or processor cards
- Usage of the 3rd party IP contained within ROM other than in the manner used by the Performance Audio Framework and the supplied examples
- Debug of customer modifications of example programs
- Debug of customer modifications to software related to the Mozart front panel user controls (display, LEDs, switches, knob, and IRdA interface)
- Debug of customer modifications to Windows control examples
- Integration of hardware connected to the 671x DSK expansion connector
- Assistance with licensing, qualification, and certification tests from Dolby, DTS, THX and similar organizations

Generally these activities require design research and hardware and software engineering, and are available from MDS's Audio Products Group.

Extended support and engineering services plans

MDS staff has extensive knowledge of software and hardware development for AV Receiver and Home Theater Systems. By using the services of MDS' Audio Products Group product development times can be substantially reduced. To further reduce development risk and time MDS can also offer designs for license.

Extended Support

Typical extended support performed by MDS' Audio Products Group include:

- Assistance with peripheral device programming (i.e., questions like "How do I make the XYZ chip operate in the ABC mode?")
- Assistance with questions related to custom boot loaders
- Assistance with creating applications that load from flash
- Development of small, custom example programs to illustrate a particular operating mode
- Design guidance with custom peripherals for standard expansion connectors

Extended support is sold in blocks of 20 hours and subject to certain minimums and usage rules.

MOZART : Support for Audio Developers

Engineering services

Typical activities performed by MDS' Audio Products Group include:

- System specification
- Processor subsystem design
- Mixed signal (A/D, D/A, and related components) subsystem design
- Unit test systems, test software specification
- Custom Mozart compatible Audio Cards
- Peripheral device drivers for use with the Performance Audio Framework
- Add-in sound field processing for use with the Performance Audio Framework
- Custom filtering software for use with the Performance Audio Framework
- Custom multichannel synthesis and reduction software with the Performance Audio Framework

Engineering services are quoted on either a time and materials basis or a fixed price basis.

Software / firmware

MDS regularly updates the Performance Audio Framework to take advantage of the latest sound processing capabilities, as well as maintenance releases to address operational issues. These updates are generally available at no charge to registered users from the Mozart Support section of the MDS web site.

Exceptions exist where added decoder/algorithm capability requires licensing or payment or royalties or license acquisition fees to 3rd parties. For this reason some upgrades or portions are available only upon request and may require proof of 3rd party license validity.

Upgrades to the Performance Audio Framework may also be available from Texas Instruments. MDS will attempt to make these updates available directly when allowed.

A note about support

MDS understands that our products may sometimes contain bugs that do not manifest themselves until the product is operated in a mode different from the typical practice. Problems related to bugs and/or improper documentation are always handled and do not incur any charges. In the case of a hardware or software bug MDS requires submission of all relevant information condensed down to the simplest possible example that illustrates the (possible) problem. MDS support engineers can provide additional guidance as to what is needed for MDS to replicate a problem and at the same time ensure the problem actually is in MDS provided software or hardware.

Ordering information (order code is in *Italics*)

Please see the MOZART datasheet for more information about MOZART hardware and development systems.

MOZART-SLVL-1: 40 hours of Extended Support

- includes discounted 3 day training course at MDS for one person

MOZART-SLVL-2: Additional 20 hours of Extended Support

- Direct access to support personal and design engineers

MOZART-SLVL-INC Per incident support after 90 Day Getting Support period

Engineering services are quoted via a contract proposal, please contact MDS with your requirements.

Dolby is trademark of Dolby Laboratories, Inc.
DTS is a trademark of Digital Theater Systems, Inc.
THX is a trademark of THX Ltd.



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