

MOST

Media Oriented Systems Transport

Multimedia and Control
Networking Technology

MOST Specification

Rev 2.1

02/2001

Version 2.1-00



© Copyright 1999 - 2001 MOST Cooperation

Legal Notice

COPYRIGHT

© Copyright 1999 - 2001 MOST Cooperation. All rights reserved.

LICENSE DISCLAIMER

Nothing on any MOST Cooperation Web Site, or in any MOST Cooperation document, shall be construed as conferring any license under any of the MOST Cooperation or its members or any third party's intellectual property rights, whether by estoppel, implication, or otherwise.

CONTENT AND LIABILITY DISCLAIMER

MOST Cooperation or its members shall not be responsible for any errors or omissions contained at any MOST Cooperation Web Site, or in any MOST Cooperation document, and reserves the right to make changes without notice. Accordingly, all MOST Cooperation and third party information is provided "AS IS". In addition, MOST Cooperation or its members are not responsible for the content of any other Web Site linked to any MOST Cooperation Web Site. Links are provided as Internet navigation tools only.

MOST COOPERATION AND ITS MEMBERS DISCLAIM ALL WARRANTIES WITH REGARD TO THE INFORMATION (INCLUDING ANY SOFTWARE) PROVIDED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT. Some jurisdictions do not allow the exclusion of implied warranties, so the above exclusion may not apply to you.

In no event shall MOST Cooperation or its members be liable for any damages whatsoever, and in particular MOST Cooperation or its members shall not be liable for special, indirect, consequential, or incidental damages, or damages for lost profits, loss of revenue, or loss of use, arising out of or related to any MOST Cooperation Web Site, any MOST Cooperation document, or the information contained in it, whether such damages arise in contract, negligence, tort, under statute, in equity, at law or otherwise.

FEEDBACK INFORMATION

Any information provided to MOST Cooperation in connection with any MOST Cooperation Web Site, or any MOST Cooperation document, shall be provided by the submitter and received by MOST Cooperation on a non-confidential basis. MOST Cooperation shall be free to use such information on an unrestricted basis.

TRADEMARKS

MOST Cooperation and its members prohibit the unauthorized use of any of their trademarks. MOST Cooperation specifically prohibits the use of the MOST Cooperation LOGO unless the use is approved by the Steering Committee of MOST Cooperation.

SUPPORT AND FURTHER INFORMATION

For more information on the MOST technology, please contact:

MOST Cooperation

Administration
P. O. Box 4327
D-76028 Karlsruhe
Germany

Tel: (+49) (0) 721 966 50 00
Fax: (+49) (0) 721 966 50 01
E-mail: contact@mostcooperation.com
Web: www.mostcooperation.com



© Copyright 1999 - 2001 MOST Cooperation
All rights reserved

MOST is a registered trademark

Contents

1	INTRODUCTION	13
2	APPLICATION SECTION	15
2.1	Overview of Data Channels.....	15
2.1.1	Control Channel	15
2.1.2	Synchronous Channel.....	15
2.1.3	Asynchronous Channel.....	16
2.1.4	Managing Synch./Async. Bandwidth.....	16
2.2	Logical Device Model	17
2.2.1	Function Block.....	17
2.2.1.1	Slave, Controller, HMI	18
2.2.1.2	First Introduction to MOST Functions.....	18
2.2.2	Functions.....	19
2.2.3	Methods.....	19
2.2.4	Properties	20
2.2.4.1	Setting a Property	20
2.2.4.2	Reading a Property	21
2.2.5	Events	21
2.2.6	Function Interfaces.....	22
2.2.7	Definition Example	23
2.2.8	MOST Data Flow Model.....	25
2.2.9	MOST System Services	26
2.2.10	Delegation, Heredity, Device Hierarchy	26
2.2.10.1	Delegation.....	26
2.2.10.2	Heredity of Functions	28
2.2.10.3	Deriving Devices/Device Hierarchy	29
2.3	Protocols.....	32
2.3.1	Protocol Basics	32
2.3.2	Structure of MOST Protocols	32
2.3.2.1	DeviceID	32
2.3.2.2	FBlockID	33
2.3.2.3	InstID.....	35
2.3.2.4	FktID	36
2.3.2.5	OPType.....	37
2.3.2.5.1	Error	38
2.3.2.5.2	Start, Result, Processing, Error.....	43
2.3.2.5.3	StartResult, Result, Processing, Error.....	43
2.3.2.5.4	StartAck, StartResultAck, ProcessingAck, ResultAck, and ErrorAck	45
2.3.2.5.5	Get, Status, Error	45
2.3.2.5.6	Set, Status, Error.....	45
2.3.2.5.7	SetGet, Status, Error.....	45
2.3.2.5.8	GetInterface, Interface, Error	46
2.3.2.5.9	Increment And Decrement	46
2.3.2.5.10	Abort	46
2.3.2.5.11	AbortAck	46
2.3.2.6	Length	47
2.3.2.7	Data And Basic Data Types	47
2.3.2.7.1	Boolean.....	49
2.3.2.7.2	BitField.....	49
2.3.2.7.3	Enum.....	49
2.3.2.7.4	Unsigned Byte.....	49
2.3.2.7.5	Signed Byte.....	50
2.3.2.7.6	Unsigned Word	50
2.3.2.7.7	Signed Word	50
2.3.2.7.8	Unsigned Long.....	50
2.3.2.7.9	Signed Long.....	50
2.3.2.7.10	String.....	51
2.3.2.7.11	Stream	51
2.3.3	Function Formats in Documentation	52
2.3.4	Protocol Catalogs.....	52

2.3.5	Application Functions on MOST Network (Introduction).....	53
2.3.6	Controller/Slave Communication.....	56
2.3.6.1	Communication With Properties Using Shadows.....	56
2.3.6.2	Communication With Methods.....	61
2.3.6.2.1	Standard Case.....	61
2.3.6.2.2	Special Case Using Routing.....	62
2.3.7	Seeking Communication Partner.....	64
2.3.8	Requesting Function Block Information from a Device.....	64
2.3.9	Requesting Functions from a Function Block.....	65
2.3.10	Transmitting The Function Interface.....	66
2.3.10.1	Principle.....	66
2.3.10.2	Realization Of The Ability To Extract The Function Interface.....	66
2.3.11	Function Classes.....	67
2.3.11.1	Properties With A Single Variable.....	67
2.3.11.1.1	Function Class Switch.....	69
2.3.11.1.2	Function Class Number.....	70
2.3.11.1.3	Function Class Text.....	72
2.3.11.1.4	Function Class Enumeration.....	73
2.3.11.1.5	Function Class BoolField.....	74
2.3.11.1.6	Function Class BitSet.....	75
2.3.11.2	Properties with Multiple Variables.....	77
2.3.11.2.1	Function Class Record.....	78
2.3.11.2.2	Function Class Array.....	80
2.3.11.2.3	Function Class Dynamic Array.....	83
2.3.11.2.4	Function Class LongArray.....	85
2.3.11.3	Function Class For Methods.....	92
2.3.12	Handling Message Notification.....	93
3	NETWORK SECTION.....	96
3.1	MOST Transceiver and its Internal Services.....	96
3.1.1	Electrical Bypass (All Bypass).....	96
3.1.2	Source Data Bypass.....	96
3.1.3	Master/Slave, Active and Passive Components.....	96
3.1.4	Data Transport.....	97
3.1.4.1	Blocks.....	97
3.1.4.2	Frames.....	97
3.1.4.2.1	Preamble.....	99
3.1.4.2.2	Boundary Descriptor.....	99
3.1.4.2.3	MOST System Control Bits.....	99
3.1.4.3	Source Data.....	100
3.1.4.3.1	Definition of Control Data and Source Data.....	100
3.1.4.3.2	Differentiating Synchronous and Asynchronous Data.....	100
3.1.4.3.3	Source Data Interface.....	100
3.1.4.3.4	Transparent Channels.....	100
3.1.4.3.5	Synchronous Area.....	101
3.1.4.3.6	Asynchronous (Packet Data) Area.....	101
3.1.4.4	Control Data.....	103
3.1.4.4.1	Control Data Interface.....	103
3.1.4.4.2	Description.....	103
3.1.5	Internal Services.....	105
3.1.5.1	Addressing.....	105
3.1.5.2	Address Initialization (SAI).....	105
3.1.5.3	Support at System Startup.....	106
3.1.5.4	Delay Recognition.....	106
3.1.5.5	Remote-Access.....	106
3.1.5.6	Automatic Channel Allocation.....	106
3.1.5.7	Power Management.....	107
3.1.5.8	Detection of Unused Channels.....	107
3.2	Dynamic Behavior of a Device.....	108
3.2.1	Overview.....	108
3.2.2	NetInterface.....	110
3.2.2.1	NetInterfacePowerOff.....	111
3.2.2.2	NetInterfaceInit.....	111
3.2.2.3	NetInterfaceNormalOperation.....	115

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.