MOST

Media **O**riented **S**ystems **T**ransport

Multimedia and Control
Networking Technology

MOST FunctionBlock AudioDiskPlayer
Rev 2.4
09/2003

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For more information on the MOST technology, please contact:

MOST Cooperation
Administration
Bannwaldallee 48
D-76185 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

Bibliography MOST Function Catalog

This is a list of released FunctionBlocks at the release time of this specification. FBlocks which are released later are not reflected in this list.

FBlockID	FunctionBlock
0x00	GeneralFBlock
0x00	GeneralPlayer
0x01	NetBlock
0x02	NetworkMaster
0x03	ConnectionMaster
0x06	Diagnosis
0x0F	Enhanced Testability
0x22	AudioAmplifier
0x26	MicrophoneInput
0x30	AudioTapePlayer
0x31	AudioDiskPlayer
0x34	DVDVideoPlayer
0x40	AmFmTuner
0x41	TMCTuner
0x42	TVTuner
0x50	Telephone
0x51	GeneralPhoneBook
0x60	GraphicDisplay
0xFF	UniqueFunctions

AudioDiskPlayer FBlock (0x31) Change History

Changes AudioDiskPlayer FBlock 2.3.1 to AudioDiskPlayer FBlock 2.4

Change Ref.	FktID	Changes
2.4-001	0x002	- Changed description of parameter FktIDList.
2.4-002	0x414	- New function added. NumberOfDisks (0x414) which can be queried by a controller to find out how many disks the player can handle.
		-

1 Introduction

A MOST Function Catalog is a collection of MOST FunctionBlocks.

This document contains the specification of a FunctionBlock. MOST FunctionBlocks are standardized and maintained by MOST workgroup Device Architecture (WG_DA). In order to speed up the process of making new Function Blocks available, every Function Block will be updated individually as required.

2 FunctionBlock Definition

2.1 AudioDiskPlayer (FBlockID=0x31)

This function block is a true subset of the GeneralPlayer and shall be used for audio disk drives (single & changer) like CD or MD.

2.1.1 FktIDs (0x000)

With the property FktIDs the functions of a function block may be inquired.

2.1.1.1 Format of Function

Function classes: Unclassified Property

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	FktIDs (0x000)	Get	
		Status	BitField
		Error	ErrorCode, ErrorInfo

2.1.1.2 Parameter

BitField

RLE-coded bitfield of available functions Remark: FktIDs are 12 Bit encoded !

Basis datatype	Length	Description
Stream		FktID1, FktID2, ...

2.1.2 Notification (0x001)

This property administrates the Notification Matrix of a function block.

2.1.2.1 Format of Function

Function classes: Unclassified Property

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	Notification (0x001)	Set	Control, DeviceID, FktIDList
		Get	FktID
		Status	FktID, DeviceIDList
		Error	ErrorCode, ErrorInfo

2.1.2.2 Parameter

Control

The parameter Control determines, where the entry has to be done, or the deletion respectively. SetAll = Entry of DeviceID in all properties that support Notification SetFunction = Entry of DeviceID for the specified functions in the Notification-Matrix ClearAll = Deletion of DeviceID at all functions of the Notification-Matrix ClearFunction = Deletion of DeviceID for the specified functions in the Notification-Matrix

Basis datatype	Range of values	Code	Description
Enum	0x00..0x03	0x00	SetAll
		0x01	SetFunction
		0x02	ClearAll
		0x03	ClearFunction

DeviceID

Rx/TxLog of a device or group address

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

FktID

Function

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

DeviceIDList

List of Devices

Basis datatype	Length	Description
Stream		DeviceID {, DeviceID }

FktIDList

List of functions with a maximum of 4.

Basis datatype	Length	Description
Stream	8	FktID {, FktID }

2.1.3 NotificationCheck (0x002)

Under certain system conditions it can be helpfull if a device can check whether its entries are still existent in the notification matrix or not. In case of error, a device is able to renew its entries.

2.1.3.1 Format of Function

Function classes: Unclassified Property

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	NotificationCheck (0x002)	Get	DeviceID
		Status	DeviceID, FktIDList
		Error	ErrorCode, ErrorInfo

2.1.3.2 Parameter

FktIDList

List of functions.

Basis datatype	Length	Description
Stream	-	FktID {, FktID }

FktID

Function

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

DeviceID

Rx/TxLog of a device or groupaddress

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

ErrorCode

ErrorInfo

2.1.4 SourceInfo (0x100)

This property gives particulars about the type of synchronous source data.

2.1.4.1 Format of Function

Function classes: Unclassified Property

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	SourceInfo (0x100)	Get	SourceNr
		Status	SourceNr, DataType, DataDescription
		Error	ErrorCode, ErrorInfo

2.1.4.2 Parameter

DataType

Type of synchronous data stream.

Basis datatype	Range of values	Code	Description
Enum	0x00..0xFF	0x00	PCM
		0x01	CDROM
		0x02	SPDIF
		0x20	MPEG1 System Stream
		0x21	MPEG2 Program Stream
		0x22	MPEG2 Transport Stream
		0x40	MPEG1 DTCP System Stream
		0x41	MPEG2 DTCP Program Stream
		0x42	MPEG2 DTCP Transport Stream
		0xFF	Unknown

DataDescription

Depending on DataType, additional information will be transported in DataDescription.

Basis datatype	Length	Descripton	
Stream	-	DataType	Description
		0x00	Resolution, AudioChannels, SrcDelay, ChannelList
		0x01	Blockwidth, ChannelList
		0x02	ChannelList
		0x20	Blockwidth, ChannelList

		0x21	Blockwidth, ChannelList
		0x22	Blockwidth, ChannelList
		0x40	Blockwidth, ChannelList
		0x41	Blockwidth, ChannelList
		0x42	Blockwidth, ChannelList

Resolution

Resolution of the AudioSamples in byte.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	not_defined

AudioChannels

Number of audio channels.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	not_defined

SrcDelay

Delay of synchronous Ddata related to the Timing Master. Remark: The parameter SrcDelay represents the register NDR.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	not_defined

ChannelList

List of particular channels.

Basis datatype	Length	Description
Stream	60	Channel {, Channel }

Channel

Number of a channel

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0	0..59	1	not_defined

BlockWidth

Number of transferred byte per MOST frame.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	not_defined

SourceNr

Number of data source.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	not_defined

2.1.5 Allocate (0x101)

With this method Allocate the source will be caused to occupy synchronous channels.

2.1.5.1 Format of Function

Function classes: Unclassified Method

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	Allocate (0x101)	Processing	
		Result	SourceNr, SrcDelay, ChannelList
		StartResult	SourceNr
		Error	ErrorCode, ErrorInfo

2.1.5.2 Parameter

SourceNr

Number of data source (within one function block there can be more than one), e.g. 0x01 for the first source.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	not_defined

SrcDelay

Delay of synchronous data related to the Timing Master. Remark: The parameter SrcDelay represents the register NDR.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	not_defined

ChannelList

List of particular Channels.

Basis datatype	Length	Description
Stream	60	Channel {, Channel }

Channel

Number of a channel

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0	0..59	1	not_defined

2.1.6 DeAllocate (0x102)

The method DeAllocate causes the source to free occupied synchronous channels.

2.1.6.1 Format of Function

Function classes: Unclassified Method

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	DeAllocate (0x102)	Processing	
		Result	SourceNr
		StartResult	SourceNr
		Error	ErrorCode, ErrorInfo

2.1.6.2 Parameter

SourceNr

Number of the data source (there can be several sources in one function block), e.g. 0x01 for the first source

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	not_defined

2.1.7 SourceActivity (0x103)

This methode controlls the activity of an audio source.

2.1.7.1 Format of Function

Function classes: Unclassified Method

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	SourceActivity (0x103)	Processing	
		Result	SourceNr, Activity
		StartResult	SourceNr, Activity
		Error	ErrorCode, ErrorInfo

2.1.7.2 Parameter

Activity

Basis datatype	Range of values	Code	Description
Enum	0x00..0x02	0x00	Off
		0x01	Pause
		0x02	On

SourceNr

Number of data source.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	not_defined

2.1.8 SourceName (0x104)

By property SourceName, an identifier of the synchronous source data can be rquested.

2.1.8.1 Format of Function

Function classes: Unclassified Property

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	SourceName (0x104)	Get	SourceNr
		Status	SourceNr, SourceName
		Error	ErrorCode, ErrorInfo

2.1.8.2 Parameter

SourceName

Basis datatype	MaxSize
String	11

SourceNr

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	not_defined

2.1.9 SourceConnect (0x105)

By use of the method SourceConnect a source will connect their data to the given synchronous MOST channels. NOTE: In systems without a connection master, the methods

Allocate/Deallocate must be used to route synchronous data to the MOST bus! In systems with a connection master, it is up to such master to decide whether allocation or source routing is used throughout the system.

2.1.9.1 Format of Function

Function classes: Unclassified Method

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	SourceConnect (0x105)	Processing	
		Result	SourceNr, SrcDelay
		StartResult	SourceNr, ChannelList
		Error	ErrorCode, ErrorInfo

2.1.9.2 Parameter

SourceNr

Number of data source (within one function block there can be more than one), e.g. 0x01 for the first source.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	none

SrcDelay

Delay of synchronous data related to the Timing Master. Remark: The parameter SrcDelay represents the register NDR.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	not_defined

ChannelList

List of particular Channels.

Basis datatype	Length	Description
Stream	60	Channel {, Channel }

Channel

Number of a channel

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0	0..59	1	none

2.1.10 SourceDisConnect (0x106)

By use of the method SourceDisConnect the synchronous channels of a source will be disconnected. This is for use with the method SourceConnect only.

2.1.10.1 Format of Function

Function classes: Unclassified Method

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	SourceDisConnect (0x106)	Processing	
		Result	SourceNr
		StartResult	SourceNr
		Error	ErrorCode, ErrorInfo

2.1.10.2 Parameter

SourceNr

Number of data source (within one function block there can be more than one), e.g. 0x01 for the first source.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	none

2.1.11 SourceRouting (0x107)

This property describes the relation between the source numbers of the function block and the physically existing synchronous data sources. Use this property to determine which source numbers are mutually exclusive.

2.1.11.1 Format of Function

Function classes: Array of { Number }

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	SourceRouting (0x107)	Get	Pos
		Status	Pos, Data
		Error	ErrorCode, ErrorInfo

2.1.11.2 Parameter

Pos

The parameter Pos={x,y} consists of two byte x and y and shows which parameter shall be set, inquired or read. Since this property has only one dimension, y is unused. Valid range: x=1..number of sources (like given in SyncDataInfo), y=0

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

Data

The content depends on the parameter pos.

Basis datatype	Length	Description	
Stream	-	Pos	Data
		{ x=0 }	PhysicalSource[1], PhysicalSource[2],...,PhysicalSource[NMax]
		{ x>0 }	PhysicalSource[x]

PhysicalSource

Number to identify the physical source this logical source number is related to. The physical source numbers are tested on equality by the connection master.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	none

2.1.12 SyncDataInfo (0x116)

This property SyncDataInfo can be used to query the function block on how many connections it may serve as sink or source.

2.1.12.1 Format of Function

Function classes: Unclassified Property

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	SyncDataInfo (0x116)	Get	
		Status	SourceCount, SinkCount
		Error	ErrorCode, ErrorInfo

2.1.12.2 Parameter

SinkCount

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	not_defined

SourceCount

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	not_defined

2.1.13 DeckStatus (0x200)

This property controls and shows the state of the drive.

2.1.13.1 Format of Function

Function classes: Enumeration

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	DeckStatus (0x200)	Set	DeckStatus
		Get	
		SetGet	DeckStatus
		Status	DeckStatus
		Error	ErrorCode, ErrorInfo

2.1.13.2 Parameter

DeckStatus

0x00 ... 0x1F = general states 0x20 ... 0x2F = video specific states 0x30 ... 0x3F = tape specific states 0x40 ... 0x4F = file handling

Basis datatype	Range of values	Code	Description
Enum	0x00..0x41	0x00	Play
		0x01	Stop
		0x02	Pause
		0x03	Load
		0x04	Unload
		0x05	Search Forward (Audio -> Micky Mouse, Video -> Scrolling)
		0x06	Search Backward (Audio -> Micky Mouse, Video -> Scrolling)
		0x07	Fast Forward by Time (Audio -> Mute, Video -> freeze image or bluescreen)
		0x08	Fast Backward by Time (Audio -> Mute, Video -> freeze image or bluescreen)
		0x09	Empty
		0x0A	Retract
		0x20	Slow Motion Forward
		0x21	Slow Motion Backward
		0x22	StepbyStep

		0x23	PreStop (BlueScreen, but play resumes at old position)
		0x30	Rewind to Begin of Tape
		0x31	Forward to End of Tape
		0x32	Search Startposition next title
		0x33	Seacrh Startposition last Title
		0x40	Fileplay
		0x41	Filetransfer

2.1.14 TimePosition (0x201)

Display of current or setting of a new position in milliseconds. Datatype: Record of {DiskTime,TrackTime, TitleTime} Remark: * an event is triggered only every second

2.1.14.1 Format of Function

Function classes: Record of { Number Number Number }

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	TimePosition (0x201)	Set	Pos, Data
		Get	Pos
		SetGet	Pos, Data
		Increment	Pos, NSteps
		Decrement	Pos, NSteps
		Status	Pos, Data
		Error	ErrorCode, ErrorInfo

2.1.14.2 Parameter

Pos

The parameter Pos={x,y} consists of two byte x and y and shows which parameter shall be set, inquired or read. Since this is an unidimensional construction, the second Byte y is unused (y=0=const) and the simplified notation Pos={x} is valid. Valid range: x=0..3

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0	0..3	1	none

Data

The content of Data depends on parameter Pos={x,y}.

Basis datatype	Length	Description	
Stream	-	Pos	Data
		{ x=0 }	DiskTime, TrackTime, TitleTime

		{ x=1 }	DiskTime
		{ x=2 }	TrackTime
		{ x=3 }	TitleTime

DiskTime

Time details in milliseconds related to begin of disk.

Basis datatype	Exp.	Range of values	Step	Unit
Signed Long	0		1	ms

TrackTime

Time details in milliseconds related to begin of current track.

Basis datatype	Exp.	Range of values	Step	Unit
Signed Long	0		1	ms

TitleTime

Time details in milliseconds related to the start of the current title

Basis datatype	Exp.	Range of values	Step	Unit
Signed Long	0		1	ms

NSteps

Number of steps for adjustment.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0	1..255	1	none

2.1.15 TrackPosition (0x202)

Displays the current or sets a new position as track. Remark: * Track=0 for "no track", e.g. if there is no medium availavble. * For a tape player, Track=1 corresponds to the first side of the tape and Track=2 corresponds to the second side. * The currently valid range of values is dependent on the medium. When required, the actual range is queriable by the interface.

2.1.15.1 Format of Function

Function classes: Number

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	TrackPosition (0x202)	Set	Track
		Get	
		SetGet	Track

		Increment	NSteps
		Decrement	NSteps
		Status	Track
		Error	ErrorCode, ErrorInfo

2.1.15.2 Parameter

NSteps

Number of steps for adjustment.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0	1..255	1	none

Track

The current track.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

2.1.16 FramePosition (0x203)

Display of current or setting of a new position as frame.

2.1.16.1 Format of Function

Function classes: Number

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	FramePosition (0x203)	Set	Frame
		Get	
		SetGet	Frame
		Increment	NSteps
		Decrement	NSteps
		Status	Frame
		Error	ErrorCode, ErrorInfo

2.1.16.2 Parameter

NSteps

Number of steps for adjustment.

Basis datatype	Exp.	Range of values	Step	Unit

Unsigned Byte	0	1..255	1	none

Frame

The current frame.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Long	0		1	none

2.1.17 MagazineStatus (0x410)

This property shows the state of the magazine.

2.1.17.1 Format of Function

Function classes: Enumeration

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	MagazineStatus (0x410)	Get	
		Status	MagazineStatus
		Error	ErrorCode, ErrorInfo

2.1.17.2 Parameter

MagazineStatus

State of Player.

Basis datatype	Range of values	Code	Description
Enum	0x00..0x03	0x00	NoMagazine
		0x01	Magazine loaded
		0x02	DiskCheck
		0x03	DiskChange

2.1.18 ActiveMagazine (0x411)

This property is for administration of the players automatic loading equipment for the magazine. By setting the number of the desired magazine this particular one will be loaded.

2.1.18.1 Format of Function

Function classes: Number

FBlock	Function	OPType	Parameter
AudioDiskPlayer	ActiveMagazine	Set	MagazineNo

(0x31)	(0x411)	Get	
		SetGet	MagazineNo
		Increment	NSteps
		Decrement	NSteps
		Status	MagazineNo
		Error	ErrorCode, ErrorInfo

2.1.18.2 Parameter

NSteps

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0	0..255	1	none

MagazineNo

Number of magazine.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	none

2.1.19 ActiveDisk (0x412)

This property is for administration of the players automatic loading equipment for the changer. By setting the number of the desired magazin pocket the particular CD will be loaded.

2.1.19.1 Format of Function

Function classes: Number

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	ActiveDisk (0x412)	Set	MagazinPos
		Get	
		SetGet	MagazinPos
		Increment	NSteps
		Decrement	NSteps
		Status	MagazinPos
		Error	ErrorCode, ErrorInfo

2.1.19.2 Parameter

NSteps

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0	0..255	1	none

MagazinPos

Number of current Medium. 0 = no medium

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	none

2.1.20 MediaInfo (0x413)

Dependent on the type of player (with magazine or without) there are one (NMax = 1) or more Media available. This property shows the name (MediaTitle), the type (MediaType), the file system (MediaFilesystem), the first Track (FirstTrack), the last track (LastTrack) and the duration (PlayTime) for every medium. Datatype: Array [1..NMax] of Record of {MediaTitle, MediaType, MediaFilesystem, FirstTrack, LastTrack, PlayTime}

2.1.20.1 Format of Function

Function classes: Array of { Record of { String Enumeration Enumeration Number Number Number } }

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	MediaInfo (0x413)	Set	Pos, Data
		Get	Pos
		Status	Pos, Data
		Error	ErrorCode, ErrorInfo

2.1.20.2 Parameter

Pos

The parameter Pos={x,y} consists of two byte x and y and shows which parameter shall be set, inquired or read. Valid range: x=0..NMax, y=0

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

Data

The content of Data depends on parameter Pos={x,y}.

Basis datatype	Length	Description	
Stream	-	Pos	Data

		{ x=0, y=0 }	MediaTitle[1], MediaType[1], MediaFilesystem[1], FirstTrack[1], LastTrack[1], PlayTime[1], ..., MediaTitle[NMax], MediaType[NMax], MediaFilesystem[NMax], FirstTrack[NMax], LastTrack[NMax], PlayTime[NMax]
		{ x>0, y=0 }	MediaTitle[x], MediaType[x], MediaFilesystem[x], FirstTrack[x], LastTrack[x], PlayTime[x]

MediaTitle

Name of medium Hint: If the name of the medium is not available, an empty string will be transferred.

Basis datatype	MaxSize
String	

MediaType

Type of stored information

Basis datatype	Range of values	Code	Description
Enum	0x00..0x04	0x00	no disc / unknown
		0x01	Audio
		0x02	Video
		0x03	ROM
		0x04	Mixed

MediaFilesystem

Filesystem Hint: For MixedMode-Media the filesystem of the data tracks will be shown, because the audio tracks are always of type CDDA.

Basis datatype	Range of values	Code	Description
Enum	0x00..0x0A	0x00	no disk / unknown
		0x01	CDDA (CD Digital Audio)
		0x02	BridgeDisc (special type of CDROM/XA that contains a ISO9660-filesystem, typically e. g. a VideoCD)
		0x03	ISO9660 (Format of CDROM)
		0x04	Joliet (Format of CDROM)
		0x05	PhotoCD
		0x06	HFS
		0x07	CDi (CD Interactive, that is with application)
		0x08	CDExtra
		0x09	CDXA (CD Extended Architecture, standard for multimedia-CDs that contain audio, video and computer data
		0x0A	UDF

FirstTrack

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

LastTrack

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

PlayTime

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Long	0		1	none

2.1.21 NumberOfDisks (0x414)

This property can be queried by a controller to find out how many disks the player can handle.

2.1.21.1 Format of Function

Function classes: Number

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	NumberOfDisks (0x414)	Get	
		Status	DiskCount
		Error	ErrorCode, ErrorInfo

2.1.21.2 Parameter

DiskCount

This parameter holds the number of disks the player can handle.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0	1..255	1	none

2.1.22 AudioDiskInfo (0x420)

For all audio data of the current medium this property will get the name (AudioTitle) as well as the playing time (AudioTime). If an audiotitle is not available, an empty string will be transferred. Two additional parameters (TrackNo, AudioFilename) provide the necessary information for an access. Audio data organised by tracks: Filename is an empty string and TrackNo contains the number of the particular track. Audio data organised by files: Filename gets the necessary information for a file access (e.g.: path + filename). TrackNo is not

utilized. Datatype: Array [1..NMax] of Record of {AudioTitle, AudioTime, TrackNo, AudioFilename}

2.1.22.1 Format of Function

Function classes: Array of { Record of { String Number Number String } }

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	AudioDiskInfo (0x420)	Get	Pos
		Status	Pos, Data
		Error	ErrorCode, ErrorInfo

2.1.22.2 Parameter

Pos

The parameter Pos={x,y} consists of two byte x and y and shows which parameter shall be set, inquired or read. Valid range: x=0..NMax, y=0..4

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

Data

The content of Data depends on parameter Pos={x,y}.

Basis datatype	Length	Description	
Stream	-	Pos	Data
		{ x=0, y=0 }	AudioTitle[1], AudioTime[1], TrackNo[1], AudioFilename[1], AudioTitle[2], AudioTime[2], TrackNo[2], AudioFilename[2], ...
		{ x>0, y=0 }	AudioTitle[x], AudioTime[x], TrackNo[x], AudioFilename[x]
		{ x>0, y=1 }	AudioTitle[x]
		{ x>0, y=2 }	AudioTime[x]
		{ x>0, y=3 }	TrackNo[x]
		{ x>0, y=4 }	AudioFilename[x]

AudioTitle

Name of the song. Hint: If Name is not available, an empty string will be transferred.

Basis datatype	MaxSize

String	

AudioTime

Playing time in milliseconds. If playing time is not available, AudioTime=0 will be transferred.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Long	0		1	ms

TrackNo

Number of the particular track. For audio data organised by file parameter TrackNo=0 will be transferred, but not be evaluated by the receiver.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

AudioFilename

Necessary information for a file access. For audio data organised by track an empty string will be transferred. Hint: The setup of the access information is not yet defined !

Basis datatype	MaxSize
String	

2.1.23 LongAudioDiskInfo (0x422)

For all audio data of the current medium this property will get the name (AudioTitle) as well as the playing time (AudioTime). If an audiotitle is not available, an empty string will be transferred. Two additional parameters (TrackNo, AudioFilename) provide the necessary information for an access. Audio data organised by tracks: Filename is an empty string and TrackNo contains the number of the particular track. Audio data organised by files: Filename gets the necessary information for a file access (e.g.: path + filename). TrackNo is not utilized. Remark: * Available FktIDs for Instance are 0x423 to 0x425. * Datatype: LongArray [1..NMax] of Record of {Tag, AudioTitle, AudioTime, TrackNo, AudioFilename}

2.1.23.1 Format of Function

Function classes: Array of { Record of { Number String Number Number String } }

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	LongAudioDiskInfo (0x422)	Get	Tag, PosY
		Status	Tag, PosY, CurrentSize, AbsolutePosition, Data
		Error	ErrorCode, ErrorInfo

2.1.23.2 Parameter

Tag

---

unique handle of a row of an array (0xFFFF = no valid value)

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

PosY

The parameter PosY={y} shows which parameter shall be set, inquired or read. Valid range: y=0, 2..5

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0	0..255	1	none

Data

The content of Data depends on parameter Tag and PosY.

Basis datatype	Length	Description	
Stream	-	Pos	Data
		{ x=0, y=0 }	Tag[1], AudioTitle[Tag[1]], AudioTime[Tag[1]], TrackNo[Tag[1]], AudioFilename[Tag[1]], Tag[2], AudioTitle[Tag[2]], AudioTime[Tag[2]], TrackNo[Tag[2]], AudioFilename[Tag[2]], ...
		{ x>0, y=0 }	x, AudioTitle[x], AudioTime[x], TrackNo[x], AudioFilename[x]
		{ x>0, y=1 }	AudioTitle[x]
		{ x>0, y=2 }	AudioTime[x]
		{ x>0, y=3 }	TrackNo[x]
		{ x>0, y=4 }	AudioFilename[x]

Tag

---

unique handle of a row of an array (0xFFFF = no valid value)

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

AudioTitle

Name of the song. Hint: If Name is not available, an empty string will be transferred.

Basis datatype	MaxSize
String	50

AudioTime

Playing time in milliseconds. If playing time is not available, AudioTime=0 will be transferred.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Long	0		1	ms

TrackNo

Number of the particular track. For audio data organised by file parameter TrackNo=0 will be transferred, but not be evaluated by the receiver.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

AudioFilename

Necessary information for a file access. For audio data organised by track an empty string will be transferred. Hint: The setup of the access information is not yet defined !

Basis datatype	MaxSize
String	100

CurrentSize

Current size of the mother array

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

AbsolutePosition

Absolute position within the mother array

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

2.1.24 DeckEvent (0x430)

Events concerning the drive.

2.1.24.1 Format of Function

Function classes: Enumeration

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	DeckEvent (0x430)	Get	
		Status	DeckEvent
		Error	ErrorCode, ErrorInfo

2.1.24.2 Parameter

DeckEvent

Type of event

Basis datatype	Range of values	Code	Description
Enum	0x00..0x05	0x00	Normal Operation
		0x01	Deck Error
		0x02	over normal temp
		0x03	under normal temp
		0x04	under voltage
		0x05	over voltage

2.1.25 MediaEvent (0x431)

Events concerning the current medium.

2.1.25.1 Format of Function

Function classes: Enumeration

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	MediaEvent (0x431)	Get	
		Status	MediaEvent
		Error	ErrorCode, ErrorInfo

2.1.25.2 Parameter

MediaEvent

Type of event

Basis datatype	Range of values	Code	Description
Enum	0x00..0x07	0x00	Normal Operation
		0x01	Corrupted File or Track
		0x02	End of CD
		0x03	Corrupted ROM-Filesystem

		0x04	Startposition
		0x05	TOC Unreadable
		0x06	Disk not available
		0x07	End of File

2.1.26 Random (0x450)

This property is for switching on and off the Random function. Hint: Disk => random selection within the current medium Magazine => random selection within the current magazine All Magazine => random selection within all magazines

2.1.26.1 Format of Function

Function classes: Enumeration

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	Random (0x450)	Set	RandomState
		Get	
		SetGet	RandomState
		Status	RandomState
		Error	ErrorCode, ErrorInfo

2.1.26.2 Parameter

RandomState

Depending on the player only a subset is available: * AudiDiskPlayer (SinglePlayer): 0x00, 0x02 * AudioDiskPlayer (Changer): 0x00, 0x02, 0x03 * MultiMediaPlayer: 0x00, 0x02, 0x03

Basis datatype	Range of values	Code	Description
Enum	0x00..0x04	0x00	Off
		0x01	reserved
		0x02	Disk
		0x03	Magazine (only drive with magazine)
		0x04	All Magazins (only drive with several magazines)

2.1.27 Scan (0x451)

This property is for switching on and off the Scan function. Hint: Disk => Seek within the current medium Magazine => Seek within the current magazine All Magazine => Seek within all magazines

2.1.27.1 Format of Function

Function classes: Enumeration

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	Scan (0x451)	Set	ScanState
		Get	
		SetGet	ScanState
		Status	ScanState
		Error	ErrorCode, ErrorInfo

2.1.27.2 Parameter

ScanState

Depending on the player only a subset is available: * AudiDiskPlayer (SinglePlayer): 0x00, 0x02 * AudioDiskPlayer (Changer): 0x00, 0x02, 0x03 * MultiMediaPlayer: 0x00, 0x02, 0x03

Basis datatype	Range of values	Code	Description
Enum	0x00..0x04	0x00	Off
		0x01	reserved
		0x02	Disk
		0x03	Magazine (only drive with magazine)
		0x04	All Magazins (only drive with several magazines)

2.1.28 Repeat (0x452)

This property is for switching on and off the repeat function. Hint: Track => automatic repeat of the current track Disk => automatic repeat of the current medium Magazine => automatic repeat of all media of the current magazine All Magazines => automatic repeat of all magazines Chapter => automatic repeat of the current chapter Title => automatic repeat of the current title AB => automatic repeat of the marked section

2.1.28.1 Format of Function

Function classes: Enumeration

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	Repeat (0x452)	Set	RepeatState
		Get	
		SetGet	RepeatState
		Status	RepeatState
		Error	ErrorCode, ErrorInfo

2.1.28.2 Parameter

RepeatState

Depending on the player only a subset is available: * AudiDiskPlayer (SinglePlayer): 0x00, ..., 0x02 * AudioDiskPlayer (Changer): 0x00, ..., 0x03 * MultiMediaPlayer: 0x00, ..., 0x03 (only Audio) and 0x05, 0x06 (only Video)

Basis datatype	Range of values	Code	Description
Enum	0x00..0x07	0x00	Off
		0x01	Track
		0x02	Disk
		0x03	Magazine (only drives with magazine)
		0x04	All magazines (only drive with several magazines)
		0x05	Chapter (only DVD-drive)
		0x06	Title (nly DVD-drive)
		0x07	AB (only DVD-drive)

2.1.29 NextTrackToPlay (0x453)

Displays the current or sets a new position as track, which is to be played after the current track. Datatype: Record of {Track, MagazinePos, MagazineNo}

2.1.29.1 Format of Function

Function classes: Record of { Number Number Number }

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	NextTrackToPlay (0x453)	Set	Pos, Data
		Get	Pos
		SetGet	Pos, Data
		Status	Pos, Data
		Error	ErrorCode, ErrorInfo

2.1.29.2 Parameter

Pos

The parameter Pos={x,y} consists of two byte x and y and shows which parameter shall be set, inquired or read. Since this is an unidimensional construction, the second Byte y is unused (y=0=const) and the simplified notation Pos={x} is valid. Valid range: x=0..3

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

Data

The content of Data depends on parameter Pos={x,y}.

Basis datatype	Length	Description
Stream	-	Track, MagazinePos, MagazineNo

Track

The parameter Pos={x,y} consists of two byte x and y and shows which parameter shall be set, inquired or read. Since this is an unidimensional construction, the second Byte y is unused (y=0=const) and the simplified notation Pos={x} is valid. Valid range: x=0..3

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Word	0		1	none

MagazinePos

No

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	none

MagazineNo

Number of magazine.

Basis datatype	Exp.	Range of values	Step	Unit
Unsigned Byte	0		1	none

2.1.30 Deemphasis (0x454)

Deemphasis

2.1.30.1 Format of Function

Function classes: Switch

FBlock	Function	OPType	Parameter
AudioDiskPlayer (0x31)	Deemphasis (0x454)	Get	
		Status	OnOff
		Error	ErrorCode, ErrorInfo

2.1.30.2 Parameter

OnOff

Basis datatype	Bit #	Code	Description
Boolean	Bit 0	False	Off
		True	On
	Bit 1 ... 7	-	reserved

3 FunctionBlock Dynamic Specification