



Open CORE™

PV Player Engine

Build Version: CORE_9.002.1.1

Jun 13, 2010

Contents

1	Data Structure Index	1
1.1	Data Structures	1
2	File Index	3
2.1	File List	3
3	Data Structure Documentation	5
3.1	PVPlayerInterface Class Reference	5
3.1.1	Detailed Description	6
3.1.2	Constructor & Destructor Documentation	6
3.1.2.1	~PVPlayerInterface	6
3.1.3	Member Function Documentation	7
3.1.3.1	AddDataSink	7
3.1.3.2	AddDataSource	7
3.1.3.3	CancelAllCommands	7
3.1.3.4	CancelCommand	8
3.1.3.5	GetCurrentPosition	8
3.1.3.6	GetCurrentPositionSync	8
3.1.3.7	GetLogLevel	9
3.1.3.8	GetMetadataValues	9
3.1.3.9	GetPlaybackMinMaxRate	10
3.1.3.10	GetPlaybackRange	10
3.1.3.11	GetPlaybackRate	11
3.1.3.12	GetPVPlayerState	11
3.1.3.13	GetPVPlayerStateSync	12
3.1.3.14	GetSDKInfo	12
3.1.3.15	GetSDKModuleInfo	12
3.1.3.16	Init	13
3.1.3.17	Pause	13

3.1.3.18	Prepare	13
3.1.3.19	QueryInterface	14
3.1.3.20	ReleaseMetadataValues	14
3.1.3.21	RemoveDataSink	15
3.1.3.22	RemoveDataSource	15
3.1.3.23	RemoveLogAppender	15
3.1.3.24	Reset	16
3.1.3.25	Resume	16
3.1.3.26	SetLogAppender	17
3.1.3.27	SetLogLevel	17
3.1.3.28	SetPlaybackRange	18
3.1.3.29	SetPlaybackRate	18
3.1.3.30	Start	19
3.1.3.31	Stop	19
3.1.3.32	UpdateDataSource	20
4	File Documentation	21
4.1	pv_player_interface.h File Reference	21

Chapter 1

Data Structure Index

1.1 Data Structures

Here are the data structures with brief descriptions:

PVPlayerInterface	5
---	---

Chapter 2

File Index

2.1 File List

Here is a list of all files with brief descriptions:

pv_player_interface.h	21
---	----

Chapter 3

Data Structure Documentation

3.1 PVPlayerInterface Class Reference

```
#include <pv_player_interface.h>
```

Public Member Functions

- virtual [~PVPlayerInterface](#) ()
- virtual PVCommandId [GetSDKModuleInfo](#) (PVSDKModuleInfo &aSDKModuleInfo, const OsclAny *aContextData=NULL)=0
- virtual PVCommandId [SetLogAppender](#) (const char *aTag, OsclSharedPtr< PVLoggerAppender > &aAppender, const OsclAny *aContextData=NULL)=0
- virtual PVCommandId [RemoveLogAppender](#) (const char *aTag, OsclSharedPtr< PVLoggerAppender > &aAppender, const OsclAny *aContextData=NULL)=0
- virtual PVCommandId [SetLogLevel](#) (const char *aTag, int32 aLevel, bool aSetSubtree=false, const OsclAny *aContextData=NULL)=0
- virtual PVCommandId [GetLogLevel](#) (const char *aTag, PVLogLevelInfo &aLogInfo, const OsclAny *aContextData=NULL)=0
- virtual PVCommandId [QueryInterface](#) (const PVUuid &aUuid, PVInterface *&aInterfacePtr, const OsclAny *aContextData=NULL)=0
- virtual PVCommandId [CancelCommand](#) (PVCommandId aCancelCmdId, const OsclAny *aContextData=NULL)=0
- virtual PVCommandId [CancelAllCommands](#) (const OsclAny *aContextData=NULL)=0
- virtual PVCommandId [GetPVPlayerState](#) (PVPlayerState &aState, const OsclAny *aContextData=NULL)=0
- virtual PVMFStatus [GetPVPlayerStateSync](#) (PVPlayerState &aState)=0
- virtual PVCommandId [AddDataSource](#) (PVPlayerDataSource &aDataSource, const OsclAny *aContextData=NULL)=0
- virtual PVCommandId [UpdateDataSource](#) (PVPlayerDataSource &aDataSource, const OsclAny *aContextData=NULL)=0
- virtual PVCommandId [Init](#) (const OsclAny *aContextData=NULL)=0
- virtual PVCommandId [GetMetadataValues](#) (PVPMetadataList &aKeyList, int32 aStartingValueIndex, int32 aMaxValueEntries, int32 &aNumAvailableValueEntries, Oscl_Vector< PvmiKvp, OsclMemAllocator > &aValueList, const OsclAny *aContextData=NULL, bool aMetadataValuesCopiedInCallback=true, uint32 aClipIndex=0)=0

- virtual PVCommandId [ReleaseMetadataValues](#) (OscI_Vector< PvmiKvp, OscI_MemAllocator > &aValueList, const OscIAny *aContextData=NULL, uint32 aClipIndex=0)=0
- virtual PVCommandId [AddDataSink](#) (PVPlayerDataSink &aDataSink, const OscIAny *aContextData=NULL)=0
- virtual PVCommandId [SetPlaybackRange](#) (PVPPPlaybackPosition aBeginPos, PVPPPlaybackPosition aEndPos, bool aQueueRange, const OscIAny *aContextData=NULL, bool aSkipToRequestedPosition=true, bool aSeekToSyncPoint=true)=0
- virtual PVCommandId [GetPlaybackRange](#) (PVPPPlaybackPosition &aBeginPos, PVPPPlaybackPosition &aEndPos, bool aQueued, const OscIAny *aContextData=NULL)=0
- virtual PVCommandId [GetCurrentPosition](#) (PVPPPlaybackPosition &aPos, const OscIAny *aContextData=NULL)=0
- virtual PVCommandId [SetPlaybackRate](#) (int32 aRate, PVMFTimebase *aTimebase=NULL, const OscIAny *aContextData=NULL)=0
- virtual PVCommandId [GetPlaybackRate](#) (int32 &aRate, PVMFTimebase *&aTimebase, const OscIAny *aContextData=NULL)=0
- virtual PVCommandId [GetPlaybackMinMaxRate](#) (int32 &aMinRate, int32 &aMaxRate, const OscIAny *aContextData=NULL)=0
- virtual PVMFStatus [GetCurrentPositionSync](#) (PVPPPlaybackPosition &aPos)=0
- virtual PVCommandId [Prepare](#) (const OscIAny *aContextData=NULL)=0
- virtual PVCommandId [Start](#) (const OscIAny *aContextData=NULL)=0
- virtual PVCommandId [Pause](#) (const OscIAny *aContextData=NULL)=0
- virtual PVCommandId [Resume](#) (const OscIAny *aContextData=NULL)=0
- virtual PVCommandId [Stop](#) (const OscIAny *aContextData=NULL)=0
- virtual PVCommandId [RemoveDataSink](#) (PVPlayerDataSink &aDataSink, const OscIAny *aContextData=NULL)=0
- virtual PVCommandId [Reset](#) (const OscIAny *aContextData=NULL)=0
- virtual PVCommandId [RemoveDataSource](#) (PVPlayerDataSource &aDataSource, const OscIAny *aContextData=NULL)=0

Static Public Member Functions

- static OSCL_IMPORT_REF void [GetSDKInfo](#) (PVSDKInfo &aSDKInfo)

3.1.1 Detailed Description

[PVPlayerInterface](#) is the interface to the pvPlayer SDK, which allows control of a multimedia playback engine. The PVPlayerFactory factory class is to be used to create and delete instances of this object

3.1.2 Constructor & Destructor Documentation

3.1.2.1 virtual PVPlayerInterface::~~PVPlayerInterface () [inline, virtual]

Object destructor function Releases all resources prior to destruction

3.1.3 Member Function Documentation

3.1.3.1 virtual PVCommandId PVPlayerInterface::AddDataSink (PVPlayerDataSink & *aDataSink*, const OsclAny * *aContextData* = NULL) [pure virtual]

This function allows a player data sink to be specified for playback. This function must be called when pvPlayer is in PVP_STATE_INITIALIZED state. The specified data sink must be a valid PVPlayerDataSink to be accepted for use in playback. This command request is asynchronous. PVCommandStatusObserver's CommandCompleted() callback handler will be called when this command request completes.

Parameters

aDataSink The player data sink to be used for playback.

aContextData Optional opaque data that will be passed back to the user with the command response
This method can leave with one of the following error codes OsclErrNotSupported if the format of the sink is incompatible with what the SDK can handle OsclErrInvalidState if invoked in the incorrect state OsclErrNoMemory if the SDK failed to allocate memory during this operation

Returns

A unique command id for asynchronous completion

3.1.3.2 virtual PVCommandId PVPlayerInterface::AddDataSource (PVPlayerDataSource & *aDataSource*, const OsclAny * *aContextData* = NULL) [pure virtual]

This function allows a player data source to be specified for playback. This function must be called when pvPlayer is in PVP_STATE_IDLE state and before calling Init. The specified data source must be a valid PVPlayerDataSource to be accepted for use in playback. This command request is asynchronous. PVCommandStatusObserver's CommandCompleted() callback handler will be called when this command request completes.

Parameters

aDataSource Reference to the player data source to be used for playback

aContextData Optional opaque data that will be passed back to the user with the command response
This method can leave with one of the following error codes OsclErrNotSupported if the format of the source is incompatible with what the SDK can handle OsclErrInvalidState if invoked in the incorrect state OsclErrNoMemory if the SDK failed to allocate memory during this operation

Returns

A unique command id for asynchronous completion

3.1.3.3 virtual PVCommandId PVPlayerInterface::CancelAllCommands (const OsclAny * *aContextData* = NULL) [pure virtual]

This API is to allow the user to cancel all pending requests in pvPlayer. The current request being processed, if any, will also be aborted. The user of PV-SDK should get the state of PVPlayer Engine after the command completes and before issuing any other command. This command request is asynchronous. PVCommandStatusObserver's CommandCompleted() callback handler will be called when this command request completes.

Parameters

aContextData Optional opaque data that will be passed back to the user with the command response

Returns

A unique command id for asynchronous completion

**3.1.3.4 virtual PVCommandId PVPlayerInterface::CancelCommand (PVCommandId
aCancelCmdId, const OsclAny * aContextData = NULL) [pure virtual]**

This API is to allow user of the SDK to cancel any specific command which is pending on pvPlayer. If the request is to cancel a command which still has to be processed pvPlayer will just remove the command from its queue of commands to be processed. If the request is to cancel a command that is ongoing then player will attempt to interrupt the ongoing command. The state of player after a cancel can vary. So the user of pvPlayerSDK must always query for state before issuing any subsequent commands. This command request is asynchronous. PVCommandStatusObserver's CommandCompleted() callback handler will be called when this command request completes.

Parameters

aCancelCmdId Command Id to be cancelled.

aContextData Optional opaque data that will be passed back to the user with the command response

Returns

A unique command id for asynchronous completion

**3.1.3.5 virtual PVCommandId PVPlayerInterface::GetCurrentPosition (PVPPlaybackPosition &
aPos, const OsclAny * aContextData = NULL) [pure virtual]**

This function allows querying of the current playback position. The playback position units will be in the one specified by the passed-in reference to PVPPlaybackPosition. Currently only milliseconds units is supported. This command request is asynchronous. PVCommandStatusObserver's CommandCompleted() callback handler will be called when this command request completes.

Parameters

aPos Reference to place the current playback position

aContextData Optional opaque data that will be passed back to the user with the command response
This method can leave with one of the following error codes OsclErrInvalidState if invoked in the incorrect state

Returns

A unique command id for asynchronous completion

**3.1.3.6 virtual PVMFStatus PVPlayerInterface::GetCurrentPositionSync (PVPPlaybackPosition
& aPos) [pure virtual]**

This function allows querying of the current playback position as a synchronous command. The playback position units will be in the one specified by the passed-in reference to PVPPlaybackPosition. Currently only millisecond units is supported.

Parameters

aPos Reference to place the current playback position This method can leave with one of the following error codes `OsciErrInvalidState` if invoked in the incorrect state

Returns

Status indicating whether the command succeeded or not.

3.1.3.7 virtual PVCommandId PVPlayerInterface::GetLogLevel (const char * *aTag*, PVLogLevelInfo & *aLogInfo*, const OsciAny * *aContextData* = NULL) [pure virtual]

Allows the logging level to be queried for a particular logging tag. A larger log level will result in more messages being logged. In the asynchronous response, this should return the log level along with an indication of where the level was inherited (i.e., the ancestor tag). This command request is asynchronous. `PVCommandStatusObserver`'s `CommandCompleted()` callback handler will be called when this command request completes.

Parameters

aTag Specifies the logger tree tag where the log level should be retrieved.

aLogInfo An output parameter which will be filled in with the log level information.

aContextData Optional opaque data that will be passed back to the user with the command response

Exceptions

This method can leave with one of the following error codes `OsciErrNoMemory` if the SDK failed to allocate memory during this operation

Returns

A unique command ID for asynchronous completion

3.1.3.8 virtual PVCommandId PVPlayerInterface::GetMetadataValues (PVPMetadataList & *aKeyList*, int32 *aStartingValueIndex*, int32 *aMaxValueEntries*, int32 & *aNumAvailableValueEntries*, Osci_Vector< PvmiKvp, OsciMemAllocator > & *aValueList*, const OsciAny * *aContextData* = NULL, bool *aMetadataValuesCopiedInCallback* = true, uint32 *aClipIndex* = 0) [pure virtual]

The function makes a request to return the metadata value(s) specified by the passed in metadata key list. If the requested metadata value is unavailable or the metadata key is invalid, the returned list will not contain a KVP entry for the key. Note that value indexed in the returned `aValueList` does not necessary match the same index into the specified `aKeyList` since this command can return none or more than one KVP for a specified key. This command request is asynchronous. `PVCommandStatusObserver`'s `CommandCompleted()` callback handler will be called when this command request completes.

Parameters

aKeyList Reference to a list of metadata keys for which metadata values are requested.

aStartingValueIndex The starting index refers to the an index into the whole value list specified by the keys in `aKeyList`. This command would populate the `aValueList` starting from the specified index.

aMaxValueEntries Input parameter to specify the maximum number of entries to be added to a `ValueList`. If there is no limit, set to -1.

aNumAvailableValueEntries Output parameter which will be filled with number of available values for the specified key list.

aValueList Reference to a vector of KVP to place the specified metadata values

aContextData Optional opaque data that will be passed back to the user with the command response

aMetadataValuesCopiedInCallback Boolean to let engine know if metadata values are copied by User of SDK in command complete callback. By default the SDK assumes this to be the case. If this argument is set to false by the caller, then SDK assumes that user will call `ReleaseMetadataValues` at a later point.

aClipIndex,: an optional parameter for use with playlists to select the clip of interest. This method can leave with one of the following error codes `OscErrInvalidState` if invoked in the incorrect state `OscErrNoMemory` if the SDK failed to allocate memory during this operation

Returns

A unique command id for asynchronous completion

3.1.3.9 virtual `PVCommandId PVPlayerInterface::GetPlaybackMinMaxRate (int32 & aMinRate, int32 & aMaxRate, const OsclAny * aContextData = NULL) [pure virtual]`

This function retrieves the minimum and maximum playback rate expressed as a millipercents of "real-time" playback rate. This function can be called anytime between `PVPlayer` instantiation and destruction. This command request is asynchronous. `PVCommandStatusObserver`'s `CommandCompleted()` callback handler will be called when this command request completes.

Parameters

aMinRate A reference to an integer which will be filled in with the minimum playback rate allowed expressed as millipercents of "real-time" playback rate.

aMaxRate A reference to an integer which will be filled in with the maximum playback rate allowed expressed as millipercents of "real-time" playback rate.

aContextData Optional opaque data that will be passed back to the user with the command response
This method can leave with one of the following error codes

Returns

A unique command id for asynchronous completion

3.1.3.10 virtual `PVCommandId PVPlayerInterface::GetPlaybackRange (PVPPlaybackPosition & aBeginPos, PVPPlaybackPosition & aEndPos, bool aQueued, const OsclAny * aContextData = NULL) [pure virtual]`

This function retrieves the playback range information for the current or queued playback range. The user can choose which playback range by the `aQueued` flag. This function can be called when `PVPlayer` is in `PVP_STATE_INITIALIZED`, `PVP_STATE_PREPARED`, `PVP_STATE_STARTED`, or `PVP_STATE_PAUSED` state. The units of position is specified in the passed-in `PVPlaybackPosition` parameters which will be filled in when the command completes. This command request is asynchronous. `PVCommandStatusObserver`'s `CommandCompleted()` callback handler will be called when this command request completes.

Parameters

- aBeginPos* Reference to place the begin position for the playback range
- aEndPos* Reference to place the end position for the playback range
- aQueued* Input flag to choose inof of which playback range to return. Set(true)for queued range. Reset(false) for current range.
- aContextData* Optional opaque data that will be passed back to the user with the command response
This method can leave with one of the following error codes `OscErrInvalidState` if invoked in the incorrect state

Returns

A unique command id for asynchronous completion

3.1.3.11 `virtual PVCommandId PVPlayerInterface::GetPlaybackRate (int32 & aRate, PVMFTimebase *& aTimebase, const OsclAny * aContextData = NULL) [pure virtual]`

This function retrieves the current playback rate setting. If the playback rate is set as a millipercet of "real-time" playback rate, then *aRate* will be filled in with the milliperecent value when this command completes successfully. If the playback rate is set by an outside timebase, *aRate* will be set to 0 and *aTimebase* pointer will point to the PVMFTimebase being used when the command completes successfully. This function can be called when *pvPlayer* is in `PVP_STATE_PREPARED`, `PVP_STATE_STARTED`, or `PVP_STATE_PAUSED` state. This command request is asynchronous. `PVCommandStatusObserver`'s `CommandCompleted()` callback handler will be called when this command request completes.

Parameters

- aRate* A reference to an integer which will be filled in with the current playback rate expressed as millipercet of "real-time" playback rate. If an outside timebase is being used, *aRate* would be set to 0.
- aTimebase* Reference to an PVMFTimebase pointer which will be valid if an outside timebase is being used for the playback clock.
- aContextData* Optional opaque data that will be passed back to the user with the command response
This method can leave with one of the following error codes

Returns

A unique command id for asynchronous completion

3.1.3.12 `virtual PVCommandId PVPlayerInterface::GetPVPlayerState (PVPlayerState & aState, const OsclAny * aContextData = NULL) [pure virtual]`

This function returns the current state of *pvPlayer*. Application may use this info for updating display or determine if the *pvPlayer* is ready for the next request. This command request is asynchronous. `PVCommandStatusObserver`'s `CommandCompleted()` callback handler will be called when this command request completes.

Parameters

- aState* A reference to a `PVPlayerState`. Upon successful completion of this command, it will contain the current state of *pvPlayer*.

aContextData Optional opaque data that will be passed back to the user with the command response

Returns

A unique command id for asynchronous completion

3.1.3.13 virtual PVMFStatus PVPlayerInterface::GetPVPlayerStateSync (PVPlayerState & aState) [pure virtual]

This function returns the current state of pvPlayer as a synchronous command. Application may use this info for updating display or determine if the pvPlayer is ready for the next request.

Parameters

aState A reference to a PVPlayerState. Upon successful completion of this command, it will contain the current state of pvPlayer.

Returns

Status indicating whether the command succeeded or not.

3.1.3.14 static OSCL_IMPORT_REF void PVPlayerInterface::GetSDKInfo (PVSDKInfo & aSDKInfo) [static]

Returns SDK version information about pvPlayer.

Parameters

aSDKInfo A reference to a PVSDKInfo structure which contains product name, supported hardware platform, supported software platform, version, part number, and PV UUID. These fields will contain info .for the currently instantiated pvPlayer engine when this function returns success.

3.1.3.15 virtual PVCommandId PVPlayerInterface::GetSDKModuleInfo (PVSDKModuleInfo & aSDKModuleInfo, const OsclAny * aContextData = NULL) [pure virtual]

Returns information about all modules currently used by pvPlayer SDK. This command request is asynchronous. PVCommandStatusObserver's CommandCompleted() callback handler will be called when this command request completes.

Parameters

aSDKModuleInfo A reference to a PVSDKModuleInfo structure which contains the number of modules currently used by pvPlayer SDK and the PV UUID and description string for each module. The PV UUID and description string for modules will be returned in one string buffer allocated by the client. If the string buffer is not large enough to hold the all the module's information, the information will be written up to the length of the buffer and truncated.

aContextData Optional opaque data that will be passed back to the user with the command response This method can leave with one of the following error codes OsclErrNoMemory if the SDK failed to allocate memory during this operation

Returns

A unique command ID for asynchronous completion

3.1.3.16 virtual PVCommandId PVPlayerInterface::Init (const OsclAny * *aContextData* = NULL) [pure virtual]

This function switches `pvPlayer` from `PVP_STATE_IDLE` state to the `PVP_STATE_INITIALIZED` state. During the transition, `pvPlayer` is in the `PVP_STATE_INITIALIZING` transitional state and the data source is being initialized to obtain metadata and track information of the source media. If initialization fails, `pvPlayer` will revert to `PVP_STATE_IDLE` state and the data source will be closed. The Command should only be called in `PVP_STATE_IDLE`. This command request is asynchronous. `PVCommandStatusObserver`'s `CommandCompleted()` callback handler will be called when this command request completes.

Parameters

aContextData Optional opaque data that will be passed back to the user with the command response
This method can leave with one of the following error codes `OsclErrInvalidState` if invoked in the incorrect state `OsclErrNoMemory` if the SDK failed to allocate memory during this operation

Returns

A unique command id for asynchronous completion

3.1.3.17 virtual PVCommandId PVPlayerInterface::Pause (const OsclAny * *aContextData* = NULL) [pure virtual]

This function pauses the currently ongoing playback. `pvPlayer` must be in `PVP_STATE_STARTED` state to call this function. When pause successfully completes, `pvPlayer` will be in `PVP_STATE_PAUSED` state. This command request is asynchronous. `PVCommandStatusObserver`'s `CommandCompleted()` callback handler will be called when this command request completes.

Parameters

aContextData Optional opaque data that will be passed back to the user with the command response
This method can leave with one of the following error codes `OsclErrInvalidState` if invoked in the incorrect state `OsclErrNoMemory` if the SDK failed to allocate memory during this operation

Returns

A unique command id for asynchronous completion

3.1.3.18 virtual PVCommandId PVPlayerInterface::Prepare (const OsclAny * *aContextData* = NULL) [pure virtual]

This functions prepares `pvPlayer` for playback. `pvPlayer` connects the data source with the data sinks and starts the data source to queue the media data for playback(e.g. for 3GPP streaming, fills the jitter buffer). `pvPlayer` also checks to make sure each component needed for playback is ready and capable. When successful, `pvPlayer` will be in `PVP_STATE_PREPARED` state, The command should be called only in `PVP_STATE_INITIALISED`. This command request is asynchronous. `PVCommandStatusObserver`'s `CommandCompleted()` callback handler will be called when this command request completes.

Parameters

aContextData Optional opaque data that will be passed back to the user with the command response
This method can leave with one of the following error codes `OsclErrInvalidState` if invoked in the incorrect state `OsclErrNoMemory` if the SDK failed to allocate memory during this operation

Returns

A unique command id for asynchronous completion

3.1.3.19 virtual PVCommandId PVPlayerInterface::QueryInterface (const PVUuid & *aUuid*, PVInterface *& *aInterfacePtr*, const OsclAny * *aContextData* = NULL) [pure virtual]

This API is to allow for extensibility of the pvPlayer interface. It allows a caller to ask for an instance of a particular interface object to be returned. The mechanism is analogous to the COM IUnknown method. The interfaces are identified with an interface ID that is a UUID as in DCE and a pointer to the interface object is returned if it is supported. Otherwise the returned pointer is NULL. This command request is asynchronous. PVCommandStatusObserver's CommandCompleted() callback handler will be called when this command request completes.

Parameters

aUuid The UUID of the desired interface

aInterfacePtr A reference to the output pointer to the desired interface

aContextData Optional opaque data that will be passed back to the user with the command response

Exceptions

This method can leave with one of the following error codes OsclErrNotSupported if the specified interface UUID is not supported

Returns

A unique command ID for asynchronous completion

3.1.3.20 virtual PVCommandId PVPlayerInterface::ReleaseMetadataValues (Oscl_Vector< PvmiKvp, OsclMemAllocator > & *aValueList*, const OsclAny * *aContextData* = NULL, uint32 *aClipIndex* = 0) [pure virtual]

The function makes a request to release the metadata value(s) specified by the passed in metadata value list. This command request is asynchronous. PVCommandStatusObserver's CommandCompleted() callback handler will be called when this command request completes. If a GetMetaDataValues were called in PVP_STATE_INITIALIZED state, then corresponding ReleaseMetaDataValues must be called before Reset. If a GetMetaDataValues were called in PVP_STATE_PREPARED, PVP_STATE_STARTED, PVP_STATE_PAUSED states, then corresponding ReleaseMetaDataValues must be called before Stop.

Parameters

aValueList Reference to a vector of KVP to place the specified metadata values

aContextData Optional opaque data that will be passed back to the user with the command response

aClipIndex,: an optional parameter for use with playlists to select the clip of interest. This method can leave with one of the following error codes OsclErrInvalidState if invoked in the incorrect state OsclErrNoMemory if the SDK failed to allocate memory during this operation

Returns

A unique command id for asynchronous completion

3.1.3.21 virtual PVCommandId PVPlayerInterface::RemoveDataSink (PVPlayerDataSink & aDataSink, const OsclAny * aContextData = NULL) [pure virtual]

This function may be used to close and unbind a data sink that has been previously added. This function must be called when pvPlayer is in PVP_STATE_INITIALIZED state. If the data sink is in use for playback, Stop must be called first to stop the playback and free the data sink. This command request is asynchronous. PVCommandStatusObserver's CommandCompleted() callback handler will be called when this command request completes.

Parameters

aDataSink Reference to the data sink to be removed

aContextData Optional opaque data that will be passed back to the user with the command response
This method can leave with one of the following error codes OsclErrBadHandle if the passed in sink parameter is invalid OsclErrInvalidState if invoked in the incorrect state OsclErrNoMemory if the SDK failed to allocate memory during this operation

Returns

A unique command id for asynchronous completion

3.1.3.22 virtual PVCommandId PVPlayerInterface::RemoveDataSource (PVPlayerDataSource & aDataSource, const OsclAny * aContextData = NULL) [pure virtual]

This function may be used to close and unbind a data source that has been previously added. This function must be called when pvPlayer is in PVP_STATE_IDLE state. If the data source has already been initialized, Reset must be called first. This command request is asynchronous. PVCommandStatusObserver's CommandCompleted() callback handler will be called when this command request completes.

Parameters

aDataSource Reference to the data source to be removed.

aContextData Optional opaque data that will be passed back to the user with the command response
This method can leave with one of the following error codes OsclErrBadHandle if the passed in sink parameter is invalid OsclErrInvalidState if invoked in the incorrect state OsclErrNoMemory if the SDK failed to allocate memory during this operation

Returns

A unique command id for asynchronous completion

3.1.3.23 virtual PVCommandId PVPlayerInterface::RemoveLogAppender (const char * aTag, OsclSharedPtr< PVLoggerAppender > & aAppender, const OsclAny * aContextData = NULL) [pure virtual]

Allows a logging appender to be removed from the logger tree at the point specified by the input tag. If the input tag is NULL then the appender will be removed from locations in the tree. This command request is asynchronous. PVCommandStatusObserver's CommandCompleted() callback handler will be called when this command request completes.

Parameters

aTag Specifies the logger tree tag where the appender should be removed. Can be NULL to remove at all locations.

aAppender The log appender to remove.

aContextData Optional opaque data that will be passed back to the user with the command response

Exceptions

This method can leave with one of the following error codes `OscErrNoMemory` if the SDK failed to allocate memory during this operation

Returns

A unique command ID for asynchronous completion

3.1.3.24 **virtual PVCommandId PVPlayerInterface::Reset (const OsclAny * aContextData = NULL) [pure virtual]**

This function cleans up resources used for playback to transition `pvPlayer` to `PVP_STATE_IDLE` state. While processing this command, `pvPlayer` is in the `PVP_STATE_RESETTING` state. If any data sinks are still referenced by `pvPlayer` when this function is called, the data sinks will be closed and removed from `pvPlayer` during the Reset. If already in `PVP_STATE_IDLE` state, then nothing will occur. This command request is asynchronous. `PVCommandStatusObserver`'s `CommandCompleted()` callback handler will be called when this command request completes.

Parameters

aContextData Optional opaque data that will be passed back to the user with the command response
This method can leave with one of the following error codes `OscErrNoMemory` if the SDK failed to allocate memory during this operation

Returns

A unique command id for asynchronous completion

3.1.3.25 **virtual PVCommandId PVPlayerInterface::Resume (const OsclAny * aContextData = NULL) [pure virtual]**

This function resumes the currently paused playback. `pvPlayer` must be in `PVP_STATE_PAUSED` state to call this function. When resume successfully completes, `pvPlayer` will be in `PVP_STATE_STARTED` state. This command request is asynchronous. `PVCommandStatusObserver`'s `CommandCompleted()` callback handler will be called when this command request completes.

Parameters

aContextData Optional opaque data that will be passed back to the user with the command response
This method can leave with one of the following error codes `OscErrInvalidState` if invoked in the incorrect state `OscErrNoMemory` if the SDK failed to allocate memory during this operation

Returns

A unique command id for asynchronous completion

3.1.3.26 virtual PVCommandId PVPlayerInterface::SetLogAppender (const char * *aTag*, OsciSharedPtr< PVLoggerAppender > & *aAppender*, const OsciAny * *aContextData* = NULL) [pure virtual]

Allows a logging appender to be attached at some point in the logger tag tree. The location in the tag tree is specified by the input tag string. A single appender can be attached multiple times in the tree, but it may result in duplicate copies of log messages if the appender is not attached in disjoint portions of the tree. A logging appender is responsible for actually writing the log message to its final location (e.g., memory, file, network, etc). This API can be called anytime after creation of pvPlayer. This command request is asynchronous. PVCommandStatusObserver's CommandCompleted() callback handler will be called when this command request completes.

Parameters

aTag Specifies the logger tree tag where the appender should be attached.

aAppender The log appender to attach.

aContextData Optional opaque data that will be passed back to the user with the command response

Exceptions

This method can leave with one of the following error codes OsciErrNoMemory if the SDK failed to allocate memory during this operation

Returns

A unique command ID for asynchronous completion

3.1.3.27 virtual PVCommandId PVPlayerInterface::SetLogLevel (const char * *aTag*, int32 *aLevel*, bool *aSetSubtree* = false, const OsciAny * *aContextData* = NULL) [pure virtual]

Allows the logging level to be set for the logging node specified by the tag. A larger log level will result in more messages being logged. A message will only be logged if its level is LESS THAN or equal to the current log level. The *aSetSubtree* flag will allow an entire subtree, with the specified tag as the root, to be reset to the specified value. This command request is asynchronous. PVCommandStatusObserver's CommandCompleted() callback handler will be called when this command request completes.

Parameters

aTag Specifies the logger tree tag where the log level should be set.

aLevel Specifies the log level to set.

aSetSubtree Specifies whether the entire subtree with *aTag* as the root should be reset to the log level.

aContextData Optional opaque data that will be passed back to the user with the command response

Exceptions

This method can leave with one of the following error codes OsciErrNoMemory if the SDK failed to allocate memory during this operation

Returns

A unique command ID for asynchronous completion

3.1.3.28 virtual PVCommandId PVPlayerInterface::SetPlaybackRange (PVPPlaybackPosition *aBeginPos*, PVPPlaybackPosition *aEndPos*, bool *aQueueRange*, const OsclAny * *aContextData* = NULL, bool *aSkipToRequestedPosition* = true, bool *aSeekToSyncPoint* = true) [pure virtual]

This function sets the begin and end positions for the new playback range or changes the end position of the current playback range. This function must be called when *pvPlayer* is in PVP_STATE_INITIALIZED, PVP_STATE_PREPARED, PVP_STATE_STARTED, or PVP_STATE_PAUSED state. The specified positions must be between beginning of clip and clip duration. The units of position is specified in the passed-in parameter PVPPlaybackPosition. If either of the positions is indeterminate, use the indeterminate flag in PVPPlaybackPosition structure. The queued playback range can be done using *aQueueRange* flag which is Not Supported as of now by PV-SDK. This function will overwrite any previous playback range info. The only exception is the changing of end position for the current playback range during playback. Command if called in player state as PVP_STATE_INITIALISED or PVP_STATE_PAUSED, will complete in one Engine AO run without actually changing the position. The change in position will come into affect when Prepare or Resume respectively is called on Engine by the app. If reposition request is not honored by the source node during Prepare or Resume, engine will continue to complete Prepare or Resume but will send an informational event "PVMFInfoChangePlaybackPositionNotSupported" to the app informing that the SetPlaybackRange request could not be honored. This command request is asynchronous. PVCommandStatusObserver's CommandCompleted() callback handler will be called when this command request completes.

Parameters

aBeginPos Beginning position for the new playback range

aEndPos Ending position for the new playback range.

aQueueRange Input flag to tell *pvPlayer* to queue the new playback range (Set/true) or use the new playback range right away (Reset/false)

aContextData Optional opaque data that will be passed back to the user with the command response

aSkipToRequestedPosition Boolean value to indicate whether or not the display should start exactly from the requested position Default is set to 'true'.

aSeekToSyncPoint Boolean value to indicate whether or not the source should seek to a sync point.
 true - Means that the decoder will be fed from a key-frame thereby promising that there are no artefacts
 false - Means that the decoder will be fed the nearest frame from the requested seek point, which can be a non-sync frame, with a possibility of causing artefacts
 Default is set to 'true' This method can leave with one of the following error codes OsclErrInvalidState if invoked in the incorrect state

Returns

A unique command id for asynchronous completion

3.1.3.29 virtual PVCommandId PVPlayerInterface::SetPlaybackRate (int32 *aRate*, PVMFTimebase * *aTimebase* = NULL, const OsclAny * *aContextData* = NULL) [pure virtual]

This function allows the setting of the playback rate. The playback rate can be set as millipercents of "real-time" playback rate. For example, 100000 means 1X "real-time", 400000 means 4X, 25000 means 0.25X, and -100000 means 1X backward. The playback rate can also be modified by specifying the timebase to use for the playback clock. This is accomplished by setting the *aRate* parameter to 0 and passing in a pointer to an PVMFTimebase. This function can be called when *pvPlayer* is in PVP_STATE_PREPARED, PVP_STATE_STARTED, or PVP_STATE_PAUSED state. Changing to or from an outside timebase is only

allowed in PVP_STATE_PREPARED. Command if called in player state PVP_STATE_PAUSED with a direction change, will complete in one Engine AO run without actually changing the direction. The change in direction will come into affect when Resume is called on Engine by the app. If the request is not honored by the source node during Resume, engine will continue to complete Resume but will send an informational event "PVMFInfoChangePlaybackPositionNotSupported" to the app informing that the SetPlaybackRate request could not be honored. This command request is asynchronous. PVCommandStatusObserver's CommandCompleted() callback handler will be called when this command request completes.

Parameters

- aRate*** The playback rate specified as millipercents of "real-time". A millipercents is 1/1000 of a percent. So 2X = 200% of realtime is 200,000 millipercents. The motivation is to provide precision with an integer parameter. Negative rates specify backward playback. The valid range of absolute value of playback rates will be limited to the minimum and maximum returned by [GetPlaybackMinMaxRate\(\)](#).
- aTimebase*** Reference to an PVMFTimebase which will be used to drive the playback clock. *aRate* must be set to 0, 1X, or -1X to use the timebase.
- aContextData*** Optional opaque data that will be passed back to the user with the command response. This method can leave with one of the following error codes `OscErrArgument` if rate or timebase is invalid.

Returns

A unique command id for asynchronous completion

3.1.3.30 virtual PVCommandId PVPlayerInterface::Start (const OsclAny * *aContextData* = NULL) [pure virtual]

This function kicks off the actual playback. Media data are sent out from the data source to the data sink(s). `pvPlayer` will transition to PVP_STATE_STARTED state after playback starts successfully. The command should be called only in PVP_STATE_PREPARED. This command request is asynchronous. PVCommandStatusObserver's CommandCompleted() callback handler will be called when this command request completes.

Parameters

- aContextData*** Optional opaque data that will be passed back to the user with the command response. This method can leave with one of the following error codes `OscErrInvalidState` if invoked in the incorrect state `OscErrNoMemory` if the SDK failed to allocate memory during this operation.

Returns

A unique command id for asynchronous completion

3.1.3.31 virtual PVCommandId PVPlayerInterface::Stop (const OsclAny * *aContextData* = NULL) [pure virtual]

This function stops the current playback and transitions `pvPlayer` to the PVP_STATE_INITIALIZED state. During the transition, data transmission from data source to all data sinks are terminated. Also all connections between data source and data sinks are torn down. This command request is asynchronous. PVCommandStatusObserver's CommandCompleted() callback handler will be called when this command request completes.

Parameters

aContextData Optional opaque data that will be passed back to the user with the command response
This method can leave with one of the following error codes `OscErrInvalidState` if invoked in the incorrect state `OscErrNoMemory` if the SDK failed to allocate memory during this operation

Returns

A unique command id for asynchronous completion

3.1.3.32 virtual PVCommandId PVPlayerInterface::UpdateDataSource (PVPlayerDataSource & aDataSource, const OscAny * aContextData = NULL) [pure virtual]

This function allows extending or updating a track list during playback. Changes can be applied prior to beginning initialization for any track.

Parameters

aDataSource *aDataSource* contains an updated version of the data source previously provided in `AddDataSource` command. The updated data source can contain modifications to existing clips in the list, or new clips added to the end of the list. This API cannot be used to update data for clips that have already been initialized, or to delete clips from the clip list.

aContextData Optional opaque data that will be passed back to the user with the command response
This method can leave with one of the following error codes `OscErrNoMemory` if the SDK failed to allocate memory during this operation

Returns

A unique command id for asynchronous completion

The documentation for this class was generated from the following file:

- [pv_player_interface.h](#)

Chapter 4

File Documentation

4.1 `pv_player_interface.h` File Reference

```
#include "oscl_base.h"  
#include "oscl_string.h"  
#include "oscl_vector.h"  
#include "oscl_mem.h"  
#include "pvlogger.h"  
#include "pvmf_return_codes.h"  
#include "pv_engine_types.h"  
#include "pv_player_types.h"  
#include "osclconfig_io.h"  
#include "oscl_string_containers.h"  
#include "pvmf_format_type.h"  
#include "pvmi_kvp.h"  
#include "pvmf_media_clock.h"
```

Data Structures

- class [PVPlayerInterface](#)

Index

- ~PVPlayerInterface
 - PVPlayerInterface, 6
 - AddDataSink
 - PVPlayerInterface, 7
 - AddDataSource
 - PVPlayerInterface, 7
 - CancelAllCommands
 - PVPlayerInterface, 7
 - CancelCommand
 - PVPlayerInterface, 8
 - GetCurrentPosition
 - PVPlayerInterface, 8
 - GetCurrentPositionSync
 - PVPlayerInterface, 8
 - GetLogLevel
 - PVPlayerInterface, 9
 - GetMetadataValues
 - PVPlayerInterface, 9
 - GetPlaybackMinMaxRate
 - PVPlayerInterface, 10
 - GetPlaybackRange
 - PVPlayerInterface, 10
 - GetPlaybackRate
 - PVPlayerInterface, 11
 - GetPVPlayerState
 - PVPlayerInterface, 11
 - GetPVPlayerStateSync
 - PVPlayerInterface, 12
 - GetSDKInfo
 - PVPlayerInterface, 12
 - GetSDKModuleInfo
 - PVPlayerInterface, 12
 - Init
 - PVPlayerInterface, 12
 - Pause
 - PVPlayerInterface, 13
 - Prepare
 - PVPlayerInterface, 13
 - pv_player_interface.h, 21
 - PVPlayerInterface, 5
 - ~PVPlayerInterface, 6
 - AddDataSink, 7
 - AddDataSource, 7
 - CancelAllCommands, 7
 - CancelCommand, 8
 - GetCurrentPosition, 8
 - GetCurrentPositionSync, 8
 - GetLogLevel, 9
 - GetMetadataValues, 9
 - GetPlaybackMinMaxRate, 10
 - GetPlaybackRange, 10
 - GetPlaybackRate, 11
 - GetPVPlayerState, 11
 - GetPVPlayerStateSync, 12
 - GetSDKInfo, 12
 - GetSDKModuleInfo, 12
 - Init, 12
 - Pause, 13
 - Prepare, 13
 - QueryInterface, 14
 - ReleaseMetadataValues, 14
 - RemoveDataSink, 14
 - RemoveDataSource, 15
 - RemoveLogAppender, 15
 - Reset, 16
 - Resume, 16
 - SetLogAppender, 16
 - SetLogLevel, 17
 - SetPlaybackRange, 17
 - SetPlaybackRate, 18
 - Start, 19
 - Stop, 19
 - UpdateDataSource, 20
- QueryInterface
 - PVPlayerInterface, 14
 - ReleaseMetadataValues
 - PVPlayerInterface, 14
 - RemoveDataSink
 - PVPlayerInterface, 14
 - RemoveDataSource
 - PVPlayerInterface, 15
 - RemoveLogAppender
 - PVPlayerInterface, 15
 - Reset

- PVPlayerInterface, [16](#)
- Resume
 - PVPlayerInterface, [16](#)
- SetLogAppender
 - PVPlayerInterface, [16](#)
- SetLogLevel
 - PVPlayerInterface, [17](#)
- SetPlaybackRange
 - PVPlayerInterface, [17](#)
- SetPlaybackRate
 - PVPlayerInterface, [18](#)
- Start
 - PVPlayerInterface, [19](#)
- Stop
 - PVPlayerInterface, [19](#)
- UpdateDataSource
 - PVPlayerInterface, [20](#)