EBS UPNP-AV Media Server SDK

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1 Media Server API Reference

Names

1.1 **Content Directory Service** ..... **??**

1.2 **Connection Manager Service** ..... **??**

1.1 Content Directory Service

Names

1.1.1 UPNP_INT32

CD_Init (CDCtx* cdRuntime,
UPNP_CHAR delimiter,
UPNP_CHAR* rootPath,
UPNP_BOOL searchable,
UPNP_BOOL restricted,
SearchMethod searchCallback,
SortMethod sortCallback,
WriteStatus writeStatus)

Initialize Content Directory context structure. ..... **??**

1.1.2 UPNP_INT32

CD_AddSearchClassToContainter (Container* container,
UPNP_UINT16 searchMediaClass,
UPNP_CHAR* searchClassName,
UPNP_BOOL includeDerived
)

Add a search class to a searchable container ..... **??**

1.1.3 UPNP_INT32

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CD_AddCreateClassToContainter (Container* container, UPNP_UINT16 createMediaClass, UPNP_CHAR* createClassName, UPNP_BOOL createClassIncDerived)

Add a create class to a non restricted container ..... **??**

1.1.4 UPNP_INT32

CD_AllocateContainter (CDCtx* cdRuntime, ObjMetadata* parentContainer, UPNP_CHAR* containerName, UPNP_UINT16 mediaClass, UPNP_UINT16 childMediaClass, UPNP_CHAR* creator, UPNP_BOOL searchable, UPNP_BOOL restricted, ObjMetadata** newContainer)

Allocate a new container object without adding any children. .. **??**

1.1.5 ObjMetadata*

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CD_AddChildContainter (CDCtx* cdRuntime,
ObjMetadata* parentContainer,
UPNP_CHAR* containerName,
UPNP_UINT16 mediaClass,
UPNP_UINT16 childMediaClass,
UPNP_CHAR* creator,
UPNP_BOOL searchable,
UPNP_BOOL restricted)

Allocate and adds a new container object as a child to the supplied container. ..... **??**

1.1.6 UPNP_INT32

CD_AddItem (CDCtx* cdRuntime,
ObjMetadata* parentContainer,
UPNP_CHAR* title,
UPNP_UINT16 mediaClass,
UPNP_CHAR* creator,
UPNP_BOOL restricted,
UPNP_INT32 refId,
WriteStatus writeStatus,
UPNP_CHAR* objectPath,
ObjMetadata** newItem)

Allocate and add a new item object to a container. ..... **??**

1.1.7 UPNP_INT32

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CD_AddResource (ObjMetadata* object,
UPNP_CHAR* resourceURI,
UPNP_CHAR* importURI,
UPNP_CHAR* protection,
UPNP_INT32 size,
UPNP_INT32 resolutionX,
UPNP_INT32 resolutionY,
UPNP_INT32 durationSec,
UPNP_INT32 bitrate,
UPNP_INT32 sampleFreq,
UPNP_INT32 colorDepth,
TransferType transportType,
FileContentType mimeType)
Add a resource to an object. ... **??**

1.1.8 UPNP_INT32

CD_AddTransportProtocol (CDCtx*
cdRuntime,
TransferType
transportType,
TransportCallback
methodCallback,
SetTransportPath
setPathCallback,
void* cookie)
Add name and callback function for a Transfer Protocol to media server's transfer server list. ... **??**

1.1.9 UPNP_INT32

CD_AddDirectory (CDCtx* cdRuntime,
UPNP_CHAR* dirPath,
UPNP_BOOL searchable,
UPNP_BOOL modifiable,
UPNP_BOOL addSubDirs,
UPNP_BOOL mediaFiles)
Add a directory and its files located on the local volume to the media server tree. ..... **??**

1.1.10 UPNP_INT32

CD_RemoveDirectory (CDCtx* cdRuntime,
UPNP_CHAR* dirPath)
Remove a directory previously added to a media server. ..... **??**

1.1.11 UPNP_INT32

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_CD_LinkLogicalToPhysical (CDCtx* cdRuntime, ObjMetadata* physicalContainer)
Update the system map with data on the disk ..... **??**

1.1.12 UPNP_INT32
_CD_AddReferenceItem (CDCtx* cdRuntime, ObjMetadata* logicalContainer, ObjMetadata* newItem)
Enumerate items present in the physical container ..... **??**

1.1.13 void **_CD_ModifyUpdateId** (CDCtx* cdRuntime)
Update the system update id .... **??**

1.1.14 UPNP_INT32
CD_FreeContext (CDCtx* cdRuntime)
Free Content Directory context structure. ..... **??**

1.1.15 ActionResponse*
CD_ActionBrowse (CDCtx* cdRuntime, UPNP_INT32 objectId, UPNP_CHAR* browseFlag, UPNP_CHAR* browseFilter, UPNP_INT32 startingIndex, UPNP_INT32 requestCount, UPNP_CHAR* sortCriteria)
Action:Browse ..... **??**

1.1.16 ActionResponse*
CD_ActionGetSearchCapabilities (CDCtx* cdRuntime)
Action:Get Search Capability .. **??**

1.1.17 ActionResponse*
CD_ActionGetSortCapabilities (CDCtx* cdRuntime)
Action:Get Sort Capability .... **??**

1.1.18 ActionResponse*
CD_ActionGetSystemUpdateId (CDCtx* cdRuntime)
Action: Get System Update Id . **??**

1.1.19 UPNP_INT32

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CD_FreeActionResponse (ActionResponse* response)
Action: Get System Update Id . **??**

API's to set up Content Directory Service

1.1.1

UPNP_INT32 **CD_Init** (CDCtx* cdRuntime, UPNP_CHAR delimiter, UPNP_CHAR* rootPath, UPNP_BOOL searchable, UPNP_BOOL restricted, SearchMethod searchCallback, SortMethod sortCallback, WriteStatus writeStatus)

Initialize Content Directory context structure.

Initialize Content Directory context structure. Creates a root container and its default child containers

Return Value: `0` on success, -1 on failure

Parameters:

`cdRuntime`	pointer to CD runtime
`delimiter`	native filesystem's delimitercharacter
`rootPath`	root of native filesystem
`searchable`	TRUE if media server is searchable
`restricted`	TRUE if media server is restricted
`searchCallback`	address of a function of typeSearchMethod to perform searches
`sortCallback`	address of a function of typeSortMethod to perform sorting
`writeStatus`	write status of the media server thevalue should be of type WriteStatus(UNKNOWN, WRITABLE, PROTECTED,NOT_WRITABLE, MIXED)

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1.1.2

UPNP_INT32 **CD_AddSearchClassToContainter** (Container* container, UPNP_UINT16 searchMediaClass, UPNP_CHAR* searchClassName, UPNP_BOOL includeDerived)

Add a search class to a searchable container

To an existing container which is searchable add a search class

Return Value: `0` on success, -1 on failure

1.1.3

UPNP_INT32 **CD_AddCreateClassToContainter** (Container* container, UPNP_UINT16 createMediaClass, UPNP_CHAR* createClassName, UPNP_BOOL createClassIncDerived)

Add a create class to a non restricted container

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1.1.4

UPNP_INT32 **CD_AllocateContainter** (CDCtx* cdRuntime, ObjMetadata* parentContainer, UPNP_CHAR* containerName, UPNP_UINT16 mediaClass, UPNP_UINT16 childMediaClass, UPNP_CHAR* creator, UPNP_BOOL searchable, UPNP_BOOL restricted, ObjMetadata** newContainer)

Allocate a new container object without adding any children.

Allocate a new container object without adding any children.

Return Value: `New` container id on success and -1 on failure

1.1.5

ObjMetadata* **CD_AddChildContainter** (CDCtx* cdRuntime, ObjMetadata* parentContainer, UPNP_CHAR* containerName, UPNP_UINT16 mediaClass, UPNP_UINT16 childMediaClass, UPNP_CHAR* creator, UPNP_BOOL searchable, UPNP_BOOL restricted)

Allocate and adds a new container object as a child to the supplied container.

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1.1.6

UPNP_INT32 **CD_AddItem** (CDCtx* cdRuntime, ObjMetadata* parentContainer, UPNP_CHAR* title, UPNP_UINT16 mediaClass, UPNP_CHAR* creator, UPNP_BOOL restricted, UPNP_INT32 refId, WriteStatus writeStatus, UPNP_CHAR* objectPath, ObjMetadata** newItem)

Allocate and add a new item object to a container.

Allocate and add a new item object to a container.

Return Value: `New` object id on success and -1 on failure

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1.1.7

UPNP_INT32 **CD_AddResource** (ObjMetadata* object, UPNP_CHAR* resourceURI, UPNP_CHAR* importURI, UPNP_CHAR* protection, UPNP_INT32 size, UPNP_INT32 resolutionX, UPNP_INT32 resolutionY, UPNP_INT32 durationSec, UPNP_INT32 bitrate, UPNP_INT32 sampleFreq, UPNP_INT32 colorDepth, TransferType transportType, FileContentType mimeType)

Add a resource to an object.

1.1.8

UPNP_INT32 **CD_AddTransportProtocol** (CDCtx* cdRuntime, TransferType transportType, TransportCallback methodCallback, SetTransportPath setPathCallback, void* cookie)

Add name and callback function for a Transfer Protocol to media server's transfer server list.

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1.1.9

UPNP_INT32 **CD_AddDirectory** (CDCtx* cdRuntime, UPNP_CHAR* dirPath, UPNP_BOOL searchable, UPNP_BOOL modifiable, UPNP_BOOL addSubDirs, UPNP_BOOL mediaFiles)

Add a directory and its files located on the local volume to the media server tree.

1.1.10

UPNP_INT32 **CD_RemoveDirectory** (CDCtx* cdRuntime, UPNP_CHAR* dirPath)

Remove a directory previously added to a media server.

Removes an existing directory from media server.

Return Value: 0 on success, -2 if path not found, -1 on failure

1.1.11

UPNP_INT32 **_CD_LinkLogicalToPhysical** (CDCtx* cdRuntime, ObjMetadata* physicalContainer)

Update the system map with data on the disk

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1.1.12

UPNP_INT32 **_CD_AddReferenceItem** (CDCtx* cdRuntime, ObjMetadata* logicalContainer, ObjMetadata* newItem)

Enumerate items present in the physical container

1.1.13

void **_CD_ModifyUpdateId** (CDCtx* cdRuntime)

Update the system update id

Update the system update id

1.1.14

UPNP_INT32 **CD_FreeContext** (CDCtx* cdRuntime)

Free Content Directory context structure.

Free up Content Directory context structure. Releases all the resources used by the content directory context.

Return Value: `0` on success, -1 on failure

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1.1.15

ActionResponse* **CD_ActionBrowse** (CDCtx* cdRuntime, UPNP_INT32 objectId, UPNP_CHAR* browseFlag, UPNP_CHAR* browseFilter, UPNP_INT32 startingIndex, UPNP_INT32 requestCount, UPNP_CHAR* sortCriteria)

Action:Browse

Incrementally browse the native heirarchy of the content directory objects exposed by the content directory. Function takes in following arguments 1. ObjectId - a string specifying the object to be browsed. (0 means root object) 2. BrowseFlag - Two browsing options are possible a. BrowseMetadata and b. BrowseDirectChildren. Argument BrowseFlag is used to supply one of these option to the browse funtion. Here is what each option mean a. BrowseMetadata - Only property of object specified by ObjectId will be returned. b. BrowseDirectChildren - first level objects under supplied objectId and the meta-data of all the specified objects will be returned. 3. Filter - used to filer the browse results. 4. StartingIndex - starting 0 based offset to enumerate children under container specified by objectId. 5. RequestCount - requested number of entries under the object specified by ObjectId 6. SortCriteria - supplies a criteria to sort the broswed result(ascending /descending or acording to a artist, title etc) for objects having sort capabilities.

This function return the browse results, the number of entries in the result, the number of total matches and latest update (state information) for the item or container.

Return Value:

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1.1.16

ActionResponse* **CD_ActionGetSearchCapabilities** (CDCtx* cdRuntime)

Action:Get Search Capability

Get the search capabilities supported by this device

Return Value: `Action` Response Buffer with result or appropriate error

1.1.17

ActionResponse* **CD_ActionGetSortCapabilities** (CDCtx* cdRuntime)

Action:Get Sort Capability

Get a csv list of meta-data tags that can be used in sort Criterion

Return Value: `Action` Response Buffer with result or appropriate error

1.1.18

ActionResponse* **CD_ActionGetSystemUpdateId** (CDCtx* cdRuntime)

Action: Get System Update Id

Provides an integer value specifying a change in content directory

Return Value: `Action` Response Buffer with result or appropriate error

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1.1.19

UPNP_INT32 **CD_FreeActionResponse** (ActionResponse* response)

Action: Get System Update Id

Provides an integer value specifying a change in content directory

Return Value: `Action` Response Buffer with result or appropriate error

1.2

Connection Manager Service

API's to set up Connection Manager Service

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2 Media Renderer API Reference

Names

2.1 **Content Directory Service** ..... **??**
2.2 **Connection Manager Service** ..... **??**

2.1 Content Directory Service

API's to set up Content Directory Service

2.2 Connection Manager Service

API's to set up Connection Manager Service

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