

NAME

Surface Object Management –

Functions

CUresult cuSurfObjectCreate (CUSurfObject *pSurfObject, const CUDA_RESOURCE_DESC *pResDesc)

Creates a surface object.

CUresult cuSurfObjectDestroy (CUSurfObject surfObject)

Destroys a surface object.

CUresult cuSurfObjectGetResourceDesc (CUDA_RESOURCE_DESC *pResDesc, CUSurfObject surfObject)

Returns a surface object's resource descriptor.

Detailed Description

\brief surface object management functions of the low-level CUDA driver API (**cuda.h**)

This section describes the surface object management functions of the low-level CUDA driver application programming interface. The surface object API is only supported on devices of compute capability 3.0 or higher.

Function Documentation

CUresult cuSurfObjectCreate (CUSurfObject * pSurfObject, const CUDA_RESOURCE_DESC * pResDesc)

Creates a surface object and returns it in *pSurfObject*. *pResDesc* describes the data to perform surface load/stores on. **CUDA_RESOURCE_DESC::resType** must be

CU_RESOURCE_TYPE_ARRAY and **CUDA_RESOURCE_DESC::res::array::hArray** must be set to a valid CUDA array handle. **CUDA_RESOURCE_DESC::flags** must be set to zero.

Surface objects are only supported on devices of compute capability 3.0 or higher.

Parameters:

pSurfObject - Surface object to create

pResDesc - Resource descriptor

Returns:

CUDA_SUCCESS, CUDA_ERROR_DEINITIALIZED,
CUDA_ERROR_NOT_INITIALIZED, CUDA_ERROR_INVALID_CONTEXT,
CUDA_ERROR_INVALID_VALUE

See also:

cuSurfObjectDestroy

CUresult cuSurfObjectDestroy (CUSurfObject surfObject)

Destroys the surface object specified by *surfObject*.

Parameters:

surfObject - Surface object to destroy

Returns:

CUDA_SUCCESS, CUDA_ERROR_DEINITIALIZED,
CUDA_ERROR_NOT_INITIALIZED, CUDA_ERROR_INVALID_CONTEXT,
CUDA_ERROR_INVALID_VALUE

See also:

cuSurfObjectCreate

CUresult cuSurfObjectGetResourceDesc (CUDA_RESOURCE_DESC * pResDesc, CUSurfObject surfObject)

Returns the resource descriptor for the surface object specified by *surfObject*.

Parameters:

pResDesc - Resource descriptor

surfObject - Surface object

Returns:

CUDA_SUCCESS, CUDA_ERROR_DEINITIALIZED,
CUDA_ERROR_NOT_INITIALIZED, CUDA_ERROR_INVALID_CONTEXT,
CUDA_ERROR_INVALID_VALUE



See also:**cuSurfObjectCreate****Author**

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