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Location: ECam.h

## Class CCamera

```
class CCamera : public CBase;
```

### Description

Base class for camera devices.

Provides the interface that an application uses to control, and acquire images from, the camera.

An application must supply an implementation of MCameraObserver2 (or [MCameraObserver](#)).

### Derivation

- [CBase](#) - Base class for all classes to be instantiated on the heap
  - CCamera - Base class for camera devices

### Members

Defined in CCamera:

[Brightness\(\)](#), [BuffersInUse\(\)](#), [CameraInfo\(\)](#), [CamerasAvailable\(\)](#), [CancelCaptureImage\(\)](#), [CaptureImage\(\)](#), [Contrast\(\)](#), [CustomInterface\(\)](#), [DigitalZoomFactor\(\)](#), [EBrightnessAuto](#), [EContrastAuto](#), [EExposureAuto](#), [EExposureBacklight](#), [EExposureCenter](#), [EExposureNight](#), [EFlashAuto](#), [EFlashFillIn](#), [EFlashForced](#), [EFlashNone](#), [EFlashRedEyeReduce](#), [EFormat16BitRGB565](#), [EFormat16bitRGB444](#), [EFormat32BitRGB888](#), [EFormatExif](#), [EFormatFbsBitmapColor16M](#), [EFormatFbsBitmapColor4K](#), [EFormatFbsBitmapColor64K](#), [EFormatJpeg](#), [EFormatMonochrome](#), [EFormatUserDefined](#), [EFormatYUV420Interleaved](#), [EFormatYUV420Planar](#), [EFormatYUV420SemiPlanar](#), [EFormatYUV422](#), [EFormatYUV422Reversed](#), [EFormatYUV444](#), [EWBAuto](#), [EWBCloudy](#), [EWBDaylight](#), [EWBFlash](#), [EWBFluorescent](#), [EWBTungsten](#), [EnumerateCaptureSizes\(\)](#), [EnumerateVideoFrameRates\(\)](#), [EnumerateVideoFrameSizes\(\)](#), [Exposure\(\)](#), [Flash\(\)](#), [FrameRate\(\)](#), [FramesPerBuffer\(\)](#), [GetFrameSize\(\)](#), [Handle\(\)](#), [JpegQuality\(\)](#), [NewDuplicateL\(\)](#), [NewL\(\)](#), [PowerOff\(\)](#), [PowerOn\(\)](#), [PrepareImageCaptureL\(\)](#), [PrepareImageCaptureL\(\)](#), [PrepareVideoCaptureL\(\)](#), [PrepareVideoCaptureL\(\)](#), [Release\(\)](#), [Reserve\(\)](#), [SetBrightnessL\(\)](#), [SetContrastL\(\)](#), [SetDigitalZoomFactorL\(\)](#), [SetExposureL\(\)](#), [SetFlashL\(\)](#), [SetJpegQuality\(\)](#), [SetViewFinderMirrorL\(\)](#), [SetWhiteBalanceL\(\)](#), [SetZoomFactorL\(\)](#), [StartVideoCapture\(\)](#), [StartViewFinderBitmapsL\(\)](#), [StartViewFinderBitmapsL\(\)](#), [StartViewFinderDirectL\(\)](#), [StartViewFinderDirectL\(\)](#), [StopVideoCapture\(\)](#), [StopViewFinder\(\)](#), [TBrightness](#), [TContrast](#), [TExposure](#), [TFlash](#), [TFormat](#), [TWhiteBalance](#), [VideoCaptureActive\(\)](#), [ViewFinderActive\(\)](#), [ViewFinderMirror\(\)](#), [WhiteBalance\(\)](#), [ZoomFactor\(\)](#)

Inherited from [CBase](#):  
[operator new\(\)](#)

### Construction and destruction

[NewL\(\)](#)

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```
static IMPORT_C CCamera *NewL(MCameraObserver &aObserver, TInt aCameraIndex);
```

### Description

Creates an object representing a camera.

### Parameters

[MCameraObserver](#)  
&aObserver

Reference to class derived from [MCameraObserver](#) designed to receive notification of asynchronous event completion.

[TInt](#) aCameraIndex

Index from 0 to [CamerasAvailable\(\)](#)-1 inclusive specifying the camera device to use.

### Return value

[CCamera](#) \*

Pointer to a fully constructed CCamera object. Ownership is passed to the caller.

### Leave codes

May

leave with KErrNoMemory or KErrNotSupported if aCameraIndex is out of range.




---

## Member functions

---

### CamerasAvailable()

```
static IMPORT_C TInt CamerasAvailable();
```

#### Description

Determines the number of cameras on the device.

#### Return value

[TInt](#)

Count of cameras present on the device.

---

### NewDuplicateL()

```
static IMPORT_C CCamera *NewDuplicateL(MCameraObserver &aObserver, TInt aCameraHandle);
```

#### Description

Duplicates the original camera object for use by, for example, multimedia systems.

May leave with `KErrNoMemory` or `KErrNotFound` if `aCameraHandle` is not valid.

#### Parameters

[MCameraObserver](#) &aObserver      Reference to an observer.

[TInt](#) aCameraHandle      Handle of an existing camera object.

#### Return value

[CCamera](#) \*      Duplicate of the original camera object.

### CameraInfo ()

```
virtual void CameraInfo(TCameraInfo &aInfo) const=0;
```

#### Description

Gets information about the camera device.

#### Parameters

[TCameraInfo](#) &aInfo      On return, information about the camera device. See [TCameraInfo](#).

#### Return value

void

### Reserve ()

```
virtual void Reserve()=0;
```

#### Description

Asynchronous function that performs any required initialisation and reserves the camera for exclusive use.

Calls [MCameraObserver::ReserveComplete\(\)](#) when complete.

#### Return value

void

### Release ()

```
virtual void Release()=0;
```

**Description**

De-initialises the camera, allowing it to be used by other clients.

**Return value**

void

---

**PowerOn ()**

```
virtual void PowerOn()=0;
```

**Description**

Asynchronous method to switch on camera power.

[User](#) must have successfully called [Reserve\(\)](#) prior to calling this function.

Calls [MCameraObserver::PowerOnComplete\(\)](#) when power on is complete.

**Return value**

void

---

**PowerOff ()**

```
virtual void PowerOff()=0;
```

**Description**

Synchronous function for switching off camera power.

**Return value**

void

---

**Handle ()**

```
virtual TInt Handle()=0;
```

**Description**

Gets the device-unique handle of this camera object.

**Return value**

[TInt](#)

The device-unique handle of this camera object.

---

**SetZoomFactorL ()**

```
virtual void SetZoomFactorL(TInt aZoomFactor=0)=0;
```

### Description

Sets the zoom factor.

This must be in the range of [TCameraInfo::iMinZoom](#) to [TCameraInfo::iMaxZoom](#) inclusive. May leave with `KErrNotSupported` if the specified zoom factor is out of range.

### Parameters

[TInt](#) aZoomFactor  
Required zoom factor.

### Return value

void

---

## ZoomFactor ()

```
virtual TInt ZoomFactor() const=0;
```

### Description

Gets the currently set zoom factor.

### Return value

[TInt](#)  
The currently set zoom factor.

---

## SetDigitalZoomFactorL ()

```
virtual void SetDigitalZoomFactorL(TInt aDigitalZoomFactor=0)=0;
```

### Description

Sets the digital zoom factor.

This must be in the range of 0 to [TCameraInfo::iMaxDigitalZoom](#) inclusive.

May leave with `KErrNotSupported` if the zoom factor is out of range.

### Parameters

[TInt](#) aDigitalZoomFactor  
The required digital zoom factor.

### Return value

void



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