

## Fast and Easy SDK for the VALCam Professional P/T/Z

### Introduction:

This SDK allows quick and easy access to all **VALCam** functions through all major Window's development platforms. Visual Basic, Visual Studio 6 C++, Delphi, and the Visual Studio.Net platform are supported.

All commands are accessed through one dll, **VALCam USB Easy SDK.dll**.

This DLL can start and control a fully functional camera application called **VALCam Quick SDK.exe**.

This application provides all camera functions including flash control, capturing and "One Click AutoCentering".

Three files are needed for camera control:

1. **VALCam Quick SDK.exe** - This is a fully functional VALCam application.
2. **VALCam USB Easy SDK.Dll** - This is the DLL that the end user application will use for access **USB SDK.exe**.
3. **End User App** - This is the end user application that will control **VALCam Quick SDK.exe** via **VALCam USB Easy SDK.Dll**

A sample C# .NET application, **VALCam Quick SDK .Net Tester.exe**, is provided to demonstrate full SDK usage. Source code for this application is also included.

### Defining DLL Function Calls

Visual Basic Declaration:

```
Private Declare Function VALCamCt Lib "VALCam USB Easy SDK.DLL"  
(ByVal Message As Long, ByVal Param1 As Long, ByVal Param2  
As Long) As Long
```

```
Private Declare Function VALCamCtFileName Lib "VALCam USB Easy SDK.Dll"  
(ByVal FileName As String) As Long
```

.NET Declaration

```
[DllImport Lib "VALCam USB Easy SDK.Dll"]  
public static extern int VALCamCt(int Msg, int Param1, int Param2);
```

```
[DllImport Lib "VALCam USB Easy SDK.Dll"]  
public static extern int VALCamCtFileName(string FileName);
```

C++

```
extern "C" _declspec(dllexport) int CALLBACK  
VALCamCt (int, Message,int Param1,int Param2, int, Param3, int Param4);
```

## Delphi

```
Function VALCam_Ct(Msg,Param1,Param2: Integer) :Integer;stdcall;  
external Lib "VALCam USB Easy SDK.Dll" name 'VALCam_Ct';
```

```
Function VALCam_CtFileName (FileName: String) :Integer;stdcall;  
external Lib "VALCam USB Easy SDK.Dll" name 'VALCam_Ct';
```

### SDK Commands:

- (1) Starting the "VALCam Quick SDK.exe"  
**VALCamCt(1,0,0);**

This command will start **VALCam Quick SDK.exe**. **VALCam Quick SDK.exe** will start invisible

The USB\_SDK.exe will not be visible until the **VALCamCt(4,0,int(handle))** command is issued.

This must be the first command issued. Other commands will not work until this command has been issued successfully.

#### Return value:

**If unsuccessful returns 0, otherwise return handle of camera app**

#### NOTE:

This command should only be used once per instance of the application.

- (2) Make the application invisible.  
**VALCamCt(3,0,(int)Window handle of user app);**

This command will make the camera interface invisible. It also frees system resources. This command should be used when not using the camera.

**Param2** must be the handle of the user application to receive messages

#### Return value:

**If unsuccessful returns 0, otherwise return handle of camera app**

- (3) Make the application visible.  
**VALCamCt(4,0,(int)Window handle of user app);**

This command will make the camera interface visible.

**Param2** must be the handle of the user application to receive messages.

#### Return value:

**If unsuccessful returns 0, otherwise return handle of camera app**

- (4) Set Capture Type and Compression Level:  
**VALCamCt(5,CaptureType,Compression)**

**CaptureType** is an integer the indicates capture type. The following values are allowed:

```
// 0 =Clipboard
```

```
// 1= JPG
```

```
// 2= BMP
```

```
// 3= DDB
```

Compression is the quantization factor for JPG captures.

Values can range from 4 (highest quality, largest size) to 255 (lowest quality, smallest size)

**Return value:**

**If unsuccessful returns 0, otherwise return handle of camera app**

**NOTE:**

**This command must be sent before the first capture**

- (5) Close USB SDK.exe

**VALCamCt(2,0,0);**

This command should ONLY be called when exiting the end user application.

**Return value:**

**If unsuccessful returns 0, otherwise return handle of camera app**

- ### (6) Setting a location and name for BMP and JPG files

### VALCamCtFileName(FileName)

This command determines the File Name and Path for JPG and BMP captures.

This command should be issued at least once before calling the Capture command.

If the command is not issued the default path-filename is: **C:\Photo ID.JPG**

### Communication from the Camera Application to the User Application.

The camera application communicates with the user application by sending two messages to the user application. The user application must respond to these messages.

**Message 1:**

When the camera application (**VALCam Quick SDK.exe**) takes a capture, a message is sent to the user application.

This message is (hex) 0401

**Message 2:**

When the camera application is closing a message is sent to the user application.

This message is (hex) 0402

The sample source code demonstrates handling both of these messages.

