

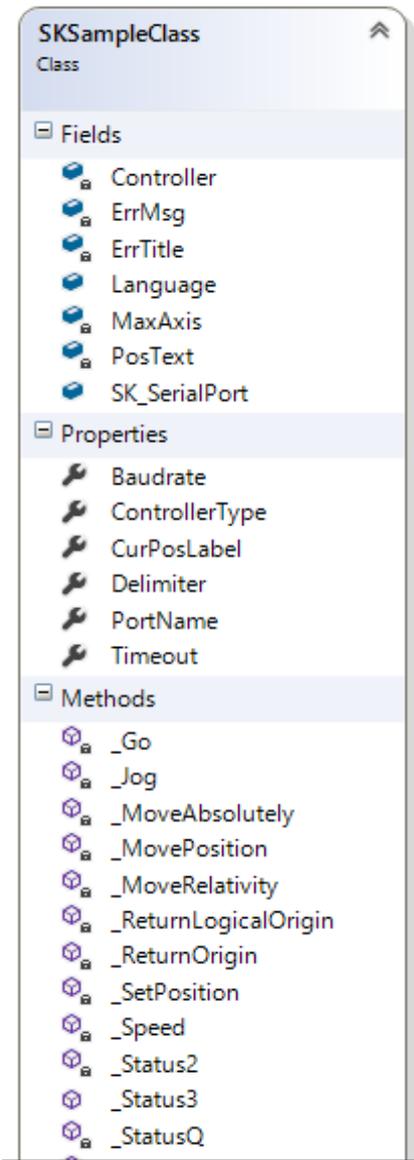
*Sigma Koki 30th March 2020*

# SK DotNet Class

SK DotNet Class is VB and C# class for Controller, Stages and functions of the main common commands of Sigma Koki Controller. It supports 1 to 4 Axis stages. Controllers: GSC01, GSC02, GIP-101, SHOT 302-304GS...etc. By including SKSampleClass (DotNet program Class) in any projects (.net) Microsoft VS2015, allows you using simple commands operation in case of Sigma Koki Stages and controllers. Use this class to customize your program on your own, Sigma Koki is not responsible in case of edit, add and delete. A source program (Form type) is provided with that class to simplify the usability of functions and commands for both VB and C# classes. Source program provides simple Terminal commands in order to send Strings Command through Serial Port.

The package Class (SKSampleClass.CS or SKSampleClass.VB)

## 1. SKSampleClass : Stages Class Diagram



SKSampleClass Class contains SK Commands used for almost all controllers but tested for 4 controllers mentioned in description, the class containing serial port resource in order to use it in the other programs.

Note that the class has the most relevant commands as SGWrite, SGread, SGOpen, SGClose related to serial port resource.

The class contains WaitReady() function in order to work with real time response of Stage status.

Commands Description:

//Home Return Origin

Content		Function
Home	VB	ReturnOrigin(Axis) Axis: 1~4, Axis = 0 (All axis)
	C#	ReturnOrigin(Axis) Axis: 1~4, Axis = 0 (All axis)

Example:

VB

ReturnOrigin(1)

\_Home Origin operation for axis 1.

//Move relativity

Content		Function
Move (Relativity)	VB	MoveRelativity (Axis, Pulses) Pulses: could be Positive or Negative Value
	C#	MoveRelativity (Axis, Pulses)

Example:

C#:

MoveRelativity (2, -5000)

Correspondent functions are:

\_Relative Move of second axis with pulses 5000

//Move absolutely

Content		Function
Move (Absolute)	VB	MoveAbsolutely (Axis, Pulses) Pulses: could be Positive or Negative Value
	C#	MoveAbsolutely (Axis, Pulses)

Example:

C#:

MoveAbsolutly (1, 3000)

Correspondent functions are:

\_Relative Move of first axis with pulses 3000

// Logical origin setting

Content	Function
Set Position 0	ResetPosition(Axis)

// ReturnLogicalOrigin

Content		Function
Return Logi	VB	ReturnLogicalOrigin(Axis, cPos)
	C#	ReturnLogicalOrigin(Axis, cPos)

// Stop emergency

Content	Function
Emergency Stop	StopStageEmergency()      All Axis

// decelerate and Stop Stage 1~4

Content	Function
Stop	StopStage(Axis)      Axis: 1~4,

// Set Speed

Content	Function
Speed Set	Speed(Axis, Slow, Fast, Rate_Renamed) Axis: 1~4 Slow : 1~500000 Fast : 1~500000 RateA: 1~1000

Example:

```
Speed(1, 2000, 5000, 2000)
```

\_Set speed for 1 Axis with related (F:2000,S5000,R200)

//Get the status "?"

Content	Function
Status ?	Status3()

Refer to the class in order to use the other commands

Note that some commands are designated for Controller GIP-101B and cannot be used in the other controllers.

In Source program provided, Load form, select the controller you use (Ex GIP 101B) set as follow:

```
C#: SK_Controller.ControllerType = SKSampleClass.Controller_Type.GIP_101B;
```

```
VB: SK_Controller.ControllerType = SKSampleClass.Controller_Type. GIP_101B
```