Elsys.TransPC.Devices Namespace

Classes

AmplifierSettings	Allows to query or set the input amplifier parameters for an input. See AmplifierSettings.
AssociatedChannel	Describes an associated channel.
AttributeEntry	Holds information about one attribute. Used with methods that get or set multiple attributes in one call.
Board	Represents a board in a TransPC system.
BoardInfo	Holds information about the hardware of a board and its capabilities.
ClusterInfo	Contains information about the capabilities supported by all boards of the cluster.
Device	Represents a device in a TransPC system.
DeviceInfo	Holds information about a device and its installed boards.
DeviceStatus	Contains information about the current status of a device.
EnvelopeData	Holds envelope data (min/max pairs).
EnvelopeRawData	Holds raw binary envelope data (min/max pairs).
Input	Represents a single input of a TransPC board.
InputInfo	Holds information about the hardware of an input and its capabilities.
RecordedBlocksCollection	Represents a list of recorded blocks.
RecordedDataBlock	Represents one recorded data block of an Input. See RecordedBlocks.
RecordingStatus	Describes the current recording status of a cluster.
SystemStatus	Describes the current overall system state.
TimeBaseSettings	Allows to query or set the time base parameters for a board. See TimeBaseSettings.
TMetaData	t-Axis meta data.
TransPCException	This is the exception class that all TpcAccess functions throw when there is a problem.
TransPCSystem	Represents a TransPC system.
TriggerSettings	Allows to query or set the trigger parameters for an input. See TriggerSettings.
YMetaData	Represents y-Axis meta data.

Enumerations

ADCOverloadState	ADC Input Overload State

AveragingMode	Averaging modes. To be used with AveragingMode.
ChargeModeStates	
ComparatorMode	Trigger comparator modes. To be used with ComparatorMode.
DataType	Data type for read out data from a channel.
DeviceCurrentState	Describes the current state of a device.
DeviceErrorCode	Describes the error state of the device.
EasyTriggerComperatorMode	Trigger comperator modes for the TPC_SetTrigger function
EasyTriggerFlags	Trigger flags for the TPC_SetTrigger function, flags can be combined with the or-operator
EasyTriggerMode	Trigger modes for the TPC_SetTrigger function
ErrorCode	Error codes used by the TpcAccess functions.
ExternalTriggerMode	External trigger input modes. To be used with ExternalTriggerMode.
ExternStartState	External start status enumeration.
FilterMode	Filter modes. To be used with FilterMode.
IEPEStatus	IEPE Connection State
InputCoupling	Input couplings. To be used with InputCoupling.
InputMode	Input modes. To be used with InputMode.
Parameter	Recording parameter.
RecordingState	Recording state enumeration.
SystemCommand	Constants for use with ExecuteSystemCommand.
TimeBaseMode	Determines the basic time base operation mode.
TimeBaseSource	Time base source. To be used with TimeBaseSource.
TriggerState	Trigger state.

ADCOverloadState Enumeration

ADC Input Overload State

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
[FlagsAttribute]
public enum ADCOverloadState
```

Members

None	0	Input signal is inside the input range.
Positive	1	Input signal is above the upper input limit.
Negative	2	Input signal is below the lower input limit.

See Also

Reference

Elsys.TransPC.Devices Namespace

AmplifierSettings Class

Allows to query or set the input amplifier parameters for an input. See AmplifierSettings.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
[SerializableAttribute]
public class AmplifierSettings
```

Inheritance **Object** → `AmplifierSettings`

Properties

AveragingMode	Input averaging: Off, 14bit, 16bit. See AveragingMode. Please note: This option cannot be selected individually for each input. The setting applies to all inputs of a board.
ChargeReset	Set Charge Input to Reset or Normal state:
FilterFreq	Filter frequency in Hertz. Valid values: A set of frequencies between 200Hz and 5MHz. In effect when filterMode = FilterMode.Module.
FilterMode	Filter mode: Off, 22kHz RC filter, 200kHz RC filter, Filter Module. See FilterMode.
IEPECurrent	Set the IEPE Current in mA if ICP/IEPE is programmable
InputCoupling	Input coupling: DC, AC, ICP, Charge, See InputCoupling
InputMode	Input mode: Off, Single ended, Differential. See InputMode.
InvertAnalog	Gets or sets wether the analog data should be inverted.
InvertMarker1	Gets or sets wether marker 1 should be inverted.
InvertMarker2	Gets or sets wether marker 2 should be inverted.
OffsetPercent	Input range offset in percent. Valid values from 0 to 100%.
PhysConstant	Constant for the conversion from volt to user selected physical unit. ValueInPhysicalUnit = ValueInVolt * factor + constant.
PhysFactor	Factor for the conversion from volt to user selected physical unit. ValueInPhysicalUnit = ValueInVolt * factor + constant.
RangeVolt	Input voltage range in Volt or pC for Charge, depending on the input coupling. Valid values can read frmo the InputRange List.
TriggerOnly	Option to disable data recording for the channel in ECR and Continuous mode. `false` (`False` in Visual Basic): channel produces data, `true` (`True` in Visual Basic): channel does not produce data, but can still cause a trigger.

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
ToString	Returns a string that represents the current object. (Inherited from **Object**)

See Also

Reference

Elsys.TransPC.Devices Namespace

AmplifierSettings.AveragingMode Property

Input averaging: Off, 14bit, 16bit. See AveragingMode. Please note: This option cannot be selected individually for each input. The setting applies to all inputs of a board.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public AveragingMode AveragingMode { get; set; }
```

Property Value

AveragingMode

See Also

Reference

AmplifierSettings Class

Elsys.TransPC.Devices Namespace

AmplifierSettings.ChargeReset Property

Set Charge Input to Reset or Normal state:

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool ChargeReset { get; set; }
```

Property Value

Boolean

See Also

Reference

AmplifierSettings Class

Elsys.TransPC.Devices Namespace

AmplifierSettings.FilterFreq Property

Filter frequency in Hertz. Valid values: A set of frequencies between 200Hz and 5MHz. In effect when filterMode = FilterMode.Module.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double FilterFreq { get; set; }
```

Property Value

Double

See Also

Reference

AmplifierSettings Class

Elsys.TransPC.Devices Namespace

AmplifierSettings.FilterMode Property

Filter mode: Off, 22kHz RC filter, 200kHz RC filter, Filter Module. See FilterMode.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public FilterMode FilterMode { get; set; }
```

Property Value

FilterMode

See Also

Reference

AmplifierSettings Class

Elsys.TransPC.Devices Namespace

AmplifierSettings.IEPECurrent Property

Set the IEPE Current in mA if ICP/IEPE is programmable

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double IEPECurrent { get; set; }
```

Property Value

Double

See Also

Reference

AmplifierSettings Class

Elsys.TransPC.Devices Namespace

AmplifierSettings.InputCoupling Property

Input coupling: DC, AC, ICP, Charge, See InputCoupling

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public InputCoupling InputCoupling { get; set; }
```

Property Value

InputCoupling

See Also

Reference

AmplifierSettings Class

Elsys.TransPC.Devices Namespace

AmplifierSettings.InputMode Property

Input mode: Off, Single ended, Differential. See InputMode.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public InputMode InputMode { get; set; }
```

Property Value

InputMode

See Also

Reference

AmplifierSettings Class

Elsys.TransPC.Devices Namespace

AmplifierSettings.InvertAnalog Property

Gets or sets wether the analog data should be inverted.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool InvertAnalog { get; set; }
```

Property Value

Boolean

See Also

Reference

AmplifierSettings Class

Elsys.TransPC.Devices Namespace

AmplifierSettings.InvertMarker1 Property

Gets or sets wether marker 1 should be inverted.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool InvertMarker1 { get; set; }
```

Property Value

Boolean

See Also

Reference

AmplifierSettings Class

Elsys.TransPC.Devices Namespace

AmplifierSettings.InvertMarker2 Property

Gets or sets wether marker 2 should be inverted.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool InvertMarker2 { get; set; }
```

Property Value

Boolean

See Also

Reference

AmplifierSettings Class

Elsys.TransPC.Devices Namespace

AmplifierSettings.OffsetPercent Property

Input range offset in percent. Valid values from 0 to 100%.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double OffsetPercent { get; set; }
```

Property Value

Double

See Also

Reference

AmplifierSettings Class
Elsys.TransPC.Devices Namespace

AmplifierSettings.PhysConstant Property

Constant for the conversion from volt to user selected physical unit. ValueInPhysicalUnit = ValueInVolt * factor + constant.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double PhysConstant { get; set; }
```

Property Value

Double

See Also

Reference

AmplifierSettings Class

Elsys.TransPC.Devices Namespace

AmplifierSettings.PhysFactor Property

Factor for the conversion from volt to user selected physical unit. ValueInPhysicalUnit = ValueInVolt * factor + constant.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double PhysFactor { get; set; }
```

Property Value

Double

See Also

Reference

AmplifierSettings Class

Elsys.TransPC.Devices Namespace

AmplifierSettings.RangeVolt Property

Input voltage range in Volt or pC for Charge, depending on the input coupling. Valid values can read frmo the InputRange List.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double RangeVolt { get; set; }
```

Property Value

Double

See Also

Reference

AmplifierSettings Class

Elsys.TransPC.Devices Namespace

AmplifierSettings.TriggerOnly Property

Option to disable data recording for the channel in ECR and Continuous mode. `false` (`False` in Visual Basic): channel produces data, `true` (`True` in Visual Basic): channel does not produce data, but can still cause a trigger.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool TriggerOnly { get; set; }
```

Property Value

Boolean

See Also

Reference

AmplifierSettings Class
Elsys.TransPC.Devices Namespace

AssociatedChannel Class

Describes an associated channel.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class AssociatedChannel
```

Inheritance **Object** → `AssociatedChannel`

Remarks

Associated channels are used in event recorder mode. An associated channel will record its data whenever the main channel triggers that it is associated to.

Properties

BoardAddress	Board address of the associated channel.
InputNumber	Input number of the associated channel.

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
ToString	Returns a string that represents the current object. (Inherited from **Object**)

See Also

Reference

Elsys.TransPC.Devices Namespace

AssociatedChannel.BoardAddress Property

Board address of the associated channel.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public char BoardAddress { get; }
```

Property Value

Char

See Also

Reference

AssociatedChannel Class

Elsys.TransPC.Devices Namespace

AssociatedChannel.InputNumber Property

Input number of the associated channel.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int InputNumber { get; }
```

Property Value

Int32

See Also

Reference

AssociatedChannel Class

Elsys.TransPC.Devices Namespace

AttributeEntry Class

Holds information about one attribute. Used with methods that get or set multiple attributes in one call.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class AttributeEntry
```

Inheritance **Object** → `AttributeEntry`

Properties

BoardAddress	The board address.
DeviceIndex	The device index.
InputNumber	The input number.
Name	The name of the attribute.
Value	The value of the attribute.

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
ToString	Returns a string that represents the current object. (Inherited from **Object**)

See Also

Reference

Elsys.TransPC.Devices Namespace

AttributeEntry.BoardAddress Property

The board address.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public char BoardAddress { get; }
```

Property Value

Char

See Also

Reference

AttributeEntry Class

Elsys.TransPC.Devices Namespace

AttributeEntry.DeviceIndex Property

The device index.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int DeviceIndex { get; }
```

Property Value

Int32

See Also

Reference

AttributeEntry Class

Elsys.TransPC.Devices Namespace

AttributeEntry.InputNumber Property

The input number.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int InputNumber { get; }
```

Property Value

Int32

See Also

Reference

AttributeEntry Class

Elsys.TransPC.Devices Namespace

AttributeEntry.Name Property

The name of the attribute.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public string Name { get; }
```

Property Value

String

See Also

Reference

AttributeEntry Class
Elsys.TransPC.Devices Namespace

AttributeEntry.Value Property

The value of the attribute.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public string Value { get; }
```

Property Value

String

See Also

Reference

AttributeEntry Class
Elsys.TransPC.Devices Namespace

AveragingMode Enumeration

Averaging modes. To be used with AveragingMode.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum AveragingMode
```

Members

Off	0	No averaging.
Avg14Bit	1	Averaging with 14 bit result (and 2 marker bits) .
Avg16Bit	2	Averaging with 16 bit result (no marker bits) .

See Also

Reference

Elsys.TransPC.Devices Namespace

Board Class

Represents a board in a TransPC system.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class Board
```

Inheritance **Object** → `Board`

Properties

BoardAddress	Gets the board address of this device.
ClusterNumber	Sets the cluster number of this board.
Device	Gets the device that this board belongs to.
HasIndividualBlocksPerInput	Gets a value indicating whether this instance has individual blocks per input in the current measurement.
Info	Gets information about the hardware of this board and its capabilities.
Inputs	Gets a list of all inputs that belong to this device.
PreviousTimeBaseSettings	Gets the time base settings that were used at the start of the current measurement.
RecordedBlocks	Gets a collection of all recorded blocks.
RecordingStatus	Gets the current recording status.
TimeBaseSettings	Gets the time base settings that will be used for the next measurement.
TransPCSystem	Gets the system that this board belongs to.

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
ToString	Returns a **String** that represents the current **Object**. (Overrides Object**.**ToString**()**)

See Also

Reference

Elsys.TransPC.Devices Namespace

Board.BoardAddress Property

Gets the board address of this device.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public char BoardAddress { get; }
```

Property Value

Char

See Also

Reference

Board Class
Elsys.TransPC.Devices Namespace

Board.ClusterNumber Property

Sets the cluster number of this board.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int ClusterNumber { get; }
```

Property Value

Int32

Remarks

Cluster numbers are used to synchronize the time base settings of several boards of the system. Boards that have the same cluster number share the same time base settings and they will record data synchronously.

See Also

Reference

Board Class
Elsys.TransPC.Devices Namespace

Board.Device Property

Gets the device that this board belongs to.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public Device Device { get; }
```

Property Value

Device

See Also

Reference

Board Class

Elsys.TransPC.Devices Namespace

Board.HasIndividualBlocksPerInput Property

Gets a value indicating whether this instance has individual blocks per input in the current measurement.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool HasIndividualBlocksPerInput { get; }
```

Property Value

Boolean

`true`

(`True` in Visual Basic) if this instance has individual blocks per input; otherwise, `false` (`False` in Visual Basic).

Remarks

In ECR single mode each channel can trigger and record data individually. Therefore all inputs will have different numbers of blocks recorded at different times. When processing the data, the t-meta data of each input needs to be processed individually.

In the other operation modes data is recorded simultaneously on all channels of a cluster. All inputs have the same number of blocks. When processing the data, the t-meta data of all channels is equal and can be processed in common for the whole cluster.

See Also

Reference

Board Class

Elsys.TransPC.Devices Namespace

Board.Info Property

Gets information about the hardware of this board and its capabilities.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public BoardInfo Info { get; }
```

Property Value

BoardInfo

See Also

Reference

Board Class

Elsys.TransPC.Devices Namespace

Board.Inputs Property

Gets a list of all inputs that belong to this device.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public Input[] Inputs { get; }
```

Property Value

Input[]

See Also

Reference

Board Class

Elsys.TransPC.Devices Namespace

Board.PreviousTimeBaseSettings Property

Gets the time base settings that were used at the start of the current measurement.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public TimeBaseSettings PreviousTimeBaseSettings { get; }
```

Property Value

TimeBaseSettings

See Also

Reference

Board Class

Elsys.TransPC.Devices Namespace

Board.RecordedBlocks Property

Gets a collection of all recorded blocks.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public RecordedBlocksCollection RecordedBlocks { get; }
```

Property Value

RecordedBlocksCollection

See Also

Reference

Board Class

Elsys.TransPC.Devices Namespace

Board.RecordingStatus Property

Gets the current recording status.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public RecordingStatus RecordingStatus { get; }
```

Property Value

RecordingStatus

See Also

Reference

Board Class

Elsys.TransPC.Devices Namespace

Board.TimeBaseSettings Property

Gets the time base settings that will be used for the next measurement.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public TimeBaseSettings TimeBaseSettings { get; }
```

Property Value
TimeBaseSettings

Remarks

Please note that the time base settings of all boards with the same cluster number are synchronized; changing a time base parameter of one board will change it on all boards with the same cluster number.

See Also

Reference
Board Class
Elsys.TransPC.Devices Namespace

Board.TransPCSystem Property

Gets the system that this board belongs to.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public TransPCSystem TransPCSystem { get; }
```

Property Value

TransPCSystem

See Also

Reference

Board Class

Elsys.TransPC.Devices Namespace

Board.ToString Method

Returns a **String** that represents the current **Object**.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public override string ToString()
```

Return Value

String

A **String** that represents the current **Object**.

See Also

Reference

Board Class

Elsys.TransPC.Devices Namespace

BoardInfo Class

Holds information about the hardware of a board and its capabilities.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class BoardInfo
```

Inheritance **Object** → BoardInfo

Properties

BoardClass	Class indicator of the board. Currently 1.
DriverVersion	Driver version of the software serving this board.
FirmwareVersion	Firmware version loaded into this board.
HardwareVersion	Hardware version of the board.
LastFactoryCalibration	Date and time of the last factory calibration.
LastUserCalibration	Date and time of the last user calibration.
MaximumBlockLength	Maximum block length in samples.
MaximumSampleRate	Maximum sample rate in Hertz.
NumberOfInputs	Number of inputs.
SerialNr	Serial number of the board.
Supports16BitAveraging	Gets a value indicating whether the board supports 16 bit averaging.
SupportsEcrExtensions	Gets a value indicating whether the board supports ECR extensions.
SupportsPowerTrigger	Gets a value indicating whether the board supports power trigger.
SupportsSlewRateTrigger	Gets a value indicating whether the board supports slew rate trigger.

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
ToString	Returns a **String** that represents the current **Object**. (Overrides Object**.**ToString**()**)

See Also

Reference

Elsys.TransPC.Devices Namespace

BoardInfo.BoardClass Property

Class indicator of the board. Currently 1.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int BoardClass { get; }
```

Property Value

Int32

See Also

Reference

BoardInfo Class

Elsys.TransPC.Devices Namespace

BoardInfo.DriverVersion Property

Driver version of the software serving this board.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public Version DriverVersion { get; }
```

Property Value

Version

See Also

Reference

BoardInfo Class

Elsys.TransPC.Devices Namespace

BoardInfo.FirmwareVersion Property

Firmware version loaded into this board.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public Version FirmwareVersion { get; }
```

Property Value

Version

See Also

Reference

BoardInfo Class

Elsys.TransPC.Devices Namespace

BoardInfo.HardwareVersion Property

Hardware version of the board.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public Version HardwareVersion { get; }
```

Property Value

Version

See Also

Reference

BoardInfo Class

Elsys.TransPC.Devices Namespace

BoardInfo.LastFactoryCalibration Property

Date and time of the last factory calibration.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public DateTime LastFactoryCalibration { get; }
```

Property Value

DateTime

See Also

Reference

BoardInfo Class

Elsys.TransPC.Devices Namespace

BoardInfo.LastUserCalibration Property

Date and time of the last user calibration.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public DateTime LastUserCalibration { get; }
```

Property Value

DateTime

See Also

Reference

BoardInfo Class

Elsys.TransPC.Devices Namespace

BoardInfo.MaximumBlockLength Property

Maximum block length in samples.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int MaximumBlockLength { get; }
```

Property Value

Int32

See Also

Reference

BoardInfo Class
Elsys.TransPC.Devices Namespace

BoardInfo.MaximumSampleRate Property

Maximum sample rate in Hertz.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int MaximumSampleRate { get; }
```

Property Value

Int32

See Also

Reference

BoardInfo Class
Elsys.TransPC.Devices Namespace

BoardInfo.NumberOfInputs Property

Number of inputs.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int NumberOfInputs { get; }
```

Property Value

Int32

See Also

Reference

BoardInfo Class
Elsys.TransPC.Devices Namespace

BoardInfo.SerialNr Property

Serial number of the board.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int SerialNr { get; }
```

Property Value

Int32

See Also

Reference

BoardInfo Class

Elsys.TransPC.Devices Namespace

BoardInfo.Supports16BitAveraging Property

Gets a value indicating whether the board supports 16 bit averaging.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool Supports16BitAveraging { get; }
```

Property Value

Boolean

See Also

Reference

BoardInfo Class

Elsys.TransPC.Devices Namespace

BoardInfo.SupportsEcrExtensions Property

Gets a value indicating whether the board supports ECR extensions.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool SupportsEcrExtensions { get; }
```

Property Value

Boolean

See Also

Reference

BoardInfo Class

Elsys.TransPC.Devices Namespace

BoardInfo.SupportsPowerTrigger Property

Gets a value indicating whether the board supports power trigger.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool SupportsPowerTrigger { get; }
```

Property Value

Boolean

See Also

Reference

BoardInfo Class

Elsys.TransPC.Devices Namespace

BoardInfo.SupportsSlewRateTrigger Property

Gets a value indicating whether the board supports slew rate trigger.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool SupportsSlewRateTrigger { get; }
```

Property Value

Boolean

See Also

Reference

BoardInfo Class

Elsys.TransPC.Devices Namespace

BoardInfo.ToString Method

Returns a **String** that represents the current **Object**.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public override string ToString()
```

Return Value

String

A **String** that represents the current **Object**.

See Also

Reference

BoardInfo Class

Elsys.TransPC.Devices Namespace

ChargeModeStates Enumeration

[Missing <summary> documentation for "T:Elsys.TransPC.Devices.ChargeModeStates"]

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum ChargeModeStates
```

Members

NORMAL	0	
RESET	1	

See Also

Reference

Elsys.TransPC.Devices Namespace

ClusterInfo Class

Contains information about the capabilities supported by all boards of the cluster.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class ClusterInfo
```

Inheritance **Object** → `ClusterInfo`

Properties

MaximumBlockLength	Maximum block length in samples that is supported by all boards of the cluster.
MaximumSampleRate	Maximum sample rate in Hertz that is supported by all boards of the cluster.
SupportsEcrExtensions	Gets a value indicating whether all boards of the cluster support ECR extensions.

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
ToString	Returns a string that represents the current object. (Inherited from **Object**)

See Also

Reference

Elsys.TransPC.Devices Namespace

ClusterInfo.MaximumBlockLength Property

Maximum block length in samples that is supported by all boards of the cluster.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int MaximumBlockLength { get; }
```

Property Value

Int32

See Also

Reference

ClusterInfo Class

Elsys.TransPC.Devices Namespace

ClusterInfo.MaximumSampleRate Property

Maximum sample rate in Hertz that is supported by all boards of the cluster.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int MaximumSampleRate { get; }
```

Property Value

Int32

See Also

Reference

ClusterInfo Class

Elsys.TransPC.Devices Namespace

ClusterInfo.SupportsEcrExtensions Property

Gets a value indicating whether all boards of the cluster support ECR extensions.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool SupportsEcrExtensions { get; }
```

Property Value

Boolean

See Also

Reference

ClusterInfo Class

Elsys.TransPC.Devices Namespace

ComparatorMode Enumeration

Trigger comparator modes. To be used with ComparatorMode.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum ComparatorMode
```

Members

Off	0	Trigger disabled.
PositiveSlope	1	Triggers on positive slope.
NegativeSlope	2	Triggers on negative slope.
BothSlopes	3	Triggers on positive and negative slope.
WindowOut	4	Triggers when the signal goes outside a window.
WindowIn	5	Triggers when the signal goes inside a window.
StateWindowOut	6	Enables multiple triggers (AND-Link) when the signal is OUTSIDE of two specified levels.
StateWindowIn	7	Enables multiple triggers (AND-Link) when the signal is INSIDE of two specified levels.

See Also

Reference

Elsys.TransPC.Devices Namespace

DataType Enumeration

Data type for read out data from a channel.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum DataType
```

Members

Volt	0	Data scaled to Volt.
PhysicalUnit	1	Data scaled to physical user unit. (See PhysFactor and PhysConstant).

See Also

Reference

Elsys.TransPC.Devices Namespace

Device Class

Represents a device in a TransPC system.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class Device
```

Inheritance **Object** → `Device`

Properties

Boards	Gets a list of all boards that belong to this device.
DeviceIndex	The index that this device has in the system.
Info	Gets information about the hardware of this device.
MeasurementNumber	The number of the measurement that is in progress, or of the last measurement if no measurement is currently active.
Status	Gets information about the current status of the device.
TransPCSystem	The TransPCSystem that this device belongs to.

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetAllAttributes	Gets a list of all attributes defined on this device.
GetAllInputs	Gets an array of all inputs that belong to this device.
GetAttribute	Get an attribute.
GetClusterNumbers	Gets the number of clusters.
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetMetaDataAttribute	Get an attribute from the copy made at the last measurement start.
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
SetAttribute	Set an attribute.
SetClusterNumbers	Sets the numbers of clusters.
StartCalibration	Execute a calibration command on the device.
ToString	Returns a **String** that represents the current **Object**. (Overrides Object**.**ToString**()**)

See Also

Reference

Elsys.TransPC.Devices Namespace

Device.Boards Property

Gets a list of all boards that belong to this device.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public Board[] Boards { get; }
```

Property Value

Board[]

See Also

Reference

Device Class

Elsys.TransPC.Devices Namespace

Device.DeviceIndex Property

The index that this device has in the system.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int DeviceIndex { get; }
```

Property Value

Int32

See Also

Reference

Device Class

Elsys.TransPC.Devices Namespace

Device.Info Property

Gets information about the hardware of this device.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public DeviceInfo Info { get; }
```

Property Value

DeviceInfo

See Also

Reference

Device Class

Elsys.TransPC.Devices Namespace

Device.MeasurementNumber Property

The number of the measurement that is in progress, or of the last measurement if no measurement is currently active.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int MeasurementNumber { get; }
```

Property Value

Int32

See Also

Reference

Device Class

Elsys.TransPC.Devices Namespace

Device.Status Property

Gets information about the current status of the device.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public DeviceStatus Status { get; }
```

Property Value

DeviceStatus

See Also

Reference

Device Class

Elsys.TransPC.Devices Namespace

Device.TransPCSystem Property

The `TransPCSystem` that this device belongs to.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public TransPCSystem TransPCSystem { get; }
```

Property Value

TransPCSystem

See Also

Reference

Device Class

Elsys.TransPC.Devices Namespace

Device.GetAllAttributes Method

Gets a list of all attributes defined on this device.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public AttributeEntry[] GetAllAttributes()
```

Return Value

AttributeEntry[]
A list with all attributes defined on this device.

See Also

Reference

Device Class
Elsys.TransPC.Devices Namespace

Device.GetAllInputs Method

Gets an array of all inputs that belong to this device.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public Input[] GetAllInputs()
```

Return Value

Input[]

Array of all inputs.

See Also

Reference

Device Class

Elsys.TransPC.Devices Namespace

Device.GetAttribute Method

Get an attribute.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public string GetAttribute(
       char boardAddress,
       int inputNumber,
       string key
)
```

Parameters

boardAddress **Char**

The board address.

inputNumber **Int32**

The input number (0-based).

key **String**

The attribute to get.

Return Value

String

The current value of the attribute. If the attribute is not defined, "" is returned.

See Also

Reference

Device Class

Elsys.TransPC.Devices Namespace

Device.GetClusterNumbers Method

Gets the number of clusters.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int[] GetClusterNumbers()
```

Return Value

Int32[]

How many clusters there are.

See Also

Reference

Device Class

Elsys.TransPC.Devices Namespace

Device.GetMetaDataAttribute Method

Get an attribute from the copy made at the last measurement start.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public string GetMetaDataAttribute(
       char boardAddress,
       int inputNumber,
       string key
)
```

Parameters

boardAddress **Char**

The board address.

inputNumber **Int32**

The input number (0-based).

key **String**

The attribute to get.

Return Value

String

The value of the attribute. If the attribute is not defined, "" is returned.

See Also

Reference

Device Class

Elsys.TransPC.Devices Namespace

Device.SetAttribute Method

Set an attribute.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void SetAttribute(
       char boardAddress,
       int inputNumber,
       string key,
       string value
)
```

Parameters

boardAddress **Char**
The board address.

inputNumber **Int32**
The input number (0-based).

key **String**
The attribute to set.

value **String**
The value to set.

Remarks

To clear an attribute, set it to "".

The method sends the value immediately to the device, unless it is called between BeginSet() and EndSet().

There is no check made for valid board addresses and input numbers. You can set attributes for any board addresses or input numbers you like.

Exceptions

TransPCException	Thrown when there is a problem with the device or the network communication.

See Also

Reference

Device Class
Elsys.TransPC.Devices Namespace

Device.SetClusterNumbers Method

Sets the numbers of clusters.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void SetClusterNumbers(
       int[] clusterNumbers
)
```

Parameters

clusterNumbers **Int32**[]

The number of clusters.

See Also

Reference

Device Class

Elsys.TransPC.Devices Namespace

Device.StartCalibration Method

Execute a calibration command on the device.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void StartCalibration()
```

Remarks

This function returns immediately after the device has been given the command to perform the calibration. The calibration may take a few seconds. The DeviceStatus property will show Calibrating during this time and return to NoError when the calibration is finished.

Exceptions

TransPCException	Thrown when there is a problem with the device or the network communication.

See Also

Reference
Device Class
Elsys.TransPC.Devices Namespace

Device.ToString Method

Returns a **String** that represents the current **Object**.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public override string ToString()
```

Return Value

String

A **String** that represents the current **Object**.

See Also

Reference

Device Class

Elsys.TransPC.Devices Namespace

DeviceCurrentState Enumeration

Describes the current state of a device.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum DeviceCurrentState
```

Members

None	0	Unknown
OK	1	The device is running and ready.
Offline	2	The device could not be contaced over the network.
Calibrating	3	The device is calibrating.
Error	4	The device is in an error state.

See Also

Reference

Elsys.TransPC.Devices Namespace

DeviceErrorCode Enumeration

Describes the error state of the device.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum DeviceErrorCode
```

Members

None	0	No error
NoConnection	1	The device could not be contaced over the network.
ServerClientVersionConflict	2	The software version of the device is not compatible with the version of this framework.
DeviceInitializationFailure	3	The device failed to initialize properly.
HardwareFailure	4	The device detected a hardware failure.
StartError	5	The device did not start. This indicates a problem with the SyncLink.
Other	6	Other reason of failure.

See Also

Reference

Elsys.TransPC.Devices Namespace

DeviceInfo Class

Holds information about a device and its installed boards.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class DeviceInfo
```

Inheritance **Object** → `DeviceInfo`

Properties

AutoStartMeasurement	True if the measurement should start if the device is started.
DataFileName	Path to the bdf-file.
DeviceDescription	Description of the device.
DeviceId	Gets the device id number. This number is intended to be unique for each device.
DeviceMACAddress	The MAC-Address of the device.
DeviceName	Gets the name of the device.
FreeDiskSpace	How many bytes are available on the instruments HDD.
HdFlushInterval	The amount of seconds until the available data is written to the HDD.
IsSimulatedHardware	`true` (`True` in Visual Basic) if the hardware is simulated, `false` (`False` in Visual Basic) if the hardware is real.
ModelType	Model Type of the measurement instrument in which the TPCX cards are installed to. 0 = Standard, 1 = TraNET-FE (read only).
NumberOfBackupFiles	Specifies how big the stack of bdf-files is.
ServerPort1	The servers primary port.
ServerPort2	The servers secondary port (only 2in1 mode).
ServerSoftwareVersion	Gets the server software version.
SyncLinkDetected	Indicate if a SyncLink was connected to the device///
TargetPort	The port for the UDP broadcast message for device identification.
TotalDiskSpace	The total available disk space on the instruments HDD.
TwoinOneEnabled	True if the device supports 2in1 mode.
TwoInOnepassword	The password to enable 2in1 mode.
Url	Gets the URL that is used to connect to the device.
UseLocalTime	True if the server time should be used.

WriteTroughCache	True if the data is cached allthough the data is already written to the HDD.

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetInputRange	Returns all available input ranges for the specified board.
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
ToString	Returns a **String** that represents the current **Object**. (Overrides Object**.**ToString**()**)

See Also

Reference

Elsys.TransPC.Devices Namespace

DeviceInfo.AutoStartMeasurement Property

True if the measurement should start if the device is started.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool AutoStartMeasurement { get; }
```

Property Value

Boolean

See Also

Reference

DeviceInfo Class
Elsys.TransPC.Devices Namespace

DeviceInfo.DataFileName Property

Path to the bdf-file.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public string DataFileName { get; }
```

Property Value

String

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.DeviceDescription Property

Description of the device.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public string DeviceDescription { get; }
```

Property Value

String

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.DeviceId Property

Gets the device id number. This number is intended to be unique for each device.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public long DeviceId { get; }
```

Property Value

Int64

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.DeviceMACAddress Property

The MAC-Address of the device.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public long DeviceMACAddress { get; }
```

Property Value

Int64

See Also

Reference

DeviceInfo Class
Elsys.TransPC.Devices Namespace

DeviceInfo.DeviceName Property

Gets the name of the device.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public string DeviceName { get; }
```

Property Value

String

See Also

Reference

DeviceInfo Class
Elsys.TransPC.Devices Namespace

DeviceInfo.FreeDiskSpace Property

How many bytes are available on the instruments HDD.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public ulong FreeDiskSpace { get; }
```

Property Value

UInt64

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.HdFlushInterval Property

The amount of seconds until the available data is written to the HDD.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int HdFlushInterval { get; }
```

Property Value

Int32

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.IsSimulatedHardware Property

`true`

(`True` in Visual Basic) if the hardware is simulated, `false` (`False` in Visual Basic) if the hardware is real.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool IsSimulatedHardware { get; }
```

Property Value

Boolean

See Also

Reference

DeviceInfo Class
Elsys.TransPC.Devices Namespace

DeviceInfo.ModelType Property

Model Type of the measurement instrument in which the TPCX cards are installed to. 0 = Standard, 1 = TraNET-FE (read only).

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int ModelType { get; }
```

Property Value

Int32

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.NumberOfBackupFiles Property

Specifies how big the stack of bdf-files is.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int NumberOfBackupFiles { get; }
```

Property Value

Int32

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.ServerPort1 Property

The servers primary port.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int ServerPort1 { get; }
```

Property Value

Int32

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.ServerPort2 Property

The servers secondary port (only 2in1 mode).

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int ServerPort2 { get; }
```

Property Value

Int32

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.ServerSoftwareVersion Property

Gets the server software version.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public Version ServerSoftwareVersion { get; }
```

Property Value

Version

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.SyncLinkDetected Property

Indicate if a SyncLink was connected to the device///

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int SyncLinkDetected { get; }
```

Property Value

Int32

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.TargetPort Property

The port for the UDP broadcast message for device identification.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int TargetPort { get; }
```

Property Value

Int32

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.TotalDiskSpace Property

The total available disk space on the instruments HDD.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public ulong TotalDiskSpace { get; }
```

Property Value

UInt64

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.TwoinOneEnabled Property

True if the device supports 2in1 mode.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool TwoinOneEnabled { get; }
```

Property Value

Boolean

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.TwoInOnepassword Property

The password to enable 2in1 mode.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public string TwoInOnepassword { get; }
```

Property Value

String

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.Url Property

Gets the URL that is used to connect to the device.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public string Url { get; }
```

Property Value

String

See Also

Reference

DeviceInfo Class
Elsys.TransPC.Devices Namespace

DeviceInfo.UseLocalTime Property

True if the server time should be used.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool UseLocalTime { get; }
```

Property Value

Boolean

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.WriteTroughCache Property

True if the data is cached allthough the data is already written to the HDD.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool WriteTroughCache { get; }
```

Property Value

Boolean

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.GetInputRange Method

Returns all available input ranges for the specified board.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double[] GetInputRange(
       int boardIdx
)
```

Parameters

boardIdx **Int32**

Board index

Return Value

Double[]

Array containing all available input ranges for the specified board.

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceInfo.ToString Method

Returns a **String** that represents the current **Object**.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public override string ToString()
```

Return Value

String

A **String** that represents the current **Object**.

See Also

Reference

DeviceInfo Class

Elsys.TransPC.Devices Namespace

DeviceStatus Class

Contains information about the current status of a device.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class DeviceStatus
```

Inheritance **Object** → DeviceStatus

Properties

DeviceCurrentState	Gets the current state of the device.
DeviceErrorCode	Gets a detailed error code if the device is in an error state.
DeviceErrorString	Gets a human readable error text if the device is in an error state.
ExternalStartArmed	External Start Armed.
NativeDeviceErrorCode	Device error status
SettingsChangeCounter	Counter that increments with parameter, attribute or cluster configuration changes.

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
ToString	Returns a string that represents the current object. (Inherited from **Object**)

See Also

Reference

Elsys.TransPC.Devices Namespace

DeviceStatus.DeviceCurrentState Property

Gets the current state of the device.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public DeviceCurrentState DeviceCurrentState { get; }
```

Property Value

DeviceCurrentState

See Also

Reference

DeviceStatus Class

Elsys.TransPC.Devices Namespace

DeviceStatus.DeviceErrorCode Property

Gets a detailed error code if the device is in an error state.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public DeviceErrorCode DeviceErrorCode { get; }
```

Property Value

DeviceErrorCode

See Also

Reference

DeviceStatus Class

Elsys.TransPC.Devices Namespace

DeviceStatus.DeviceErrorString Property

Gets a human readable error text if the device is in an error state.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public string DeviceErrorString { get; }
```

Property Value

String

See Also

Reference

DeviceStatus Class

Elsys.TransPC.Devices Namespace

DeviceStatus.ExternalStartArmed Property

External Start Armed.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool ExternalStartArmed { get; set; }
```

Property Value

Boolean

See Also

Reference

DeviceStatus Class

Elsys.TransPC.Devices Namespace

DeviceStatus.NativeDeviceErrorCode Property

Device error status

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public ErrorCode NativeDeviceErrorCode { get; set; }
```

Property Value
ErrorCode

Remarks

This field has the value NoError if the device was initialized correctly, the network connection could be established and the device is responding. During the calibration phase of a device this field has the value Calibrating. If the connection to the device could not be established or is lost at present, this field has the value NoConnection. If the device has an internal problem (software or hardware failure), this field contains the corresponding error code.

See Also

Reference
DeviceStatus Class
Elsys.TransPC.Devices Namespace

DeviceStatus.SettingsChangeCounter Property

Counter that increments with parameter, attribute or cluster configuration changes.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int SettingsChangeCounter { get; }
```

Property Value

Int32

Remarks

The intention if this counter is to allow for easy detection of changes in the settings without comparing all the settings values.

See Also

Reference

DeviceStatus Class
Elsys.TransPC.Devices Namespace

EasyTriggerComperatorMode Enumeration

Trigger comperator modes for the TPC_SetTrigger function

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum EasyTriggerComperatorMode
```

Members

Positive	1	Triggers on positive slope; Triggers when signal goes inside window in Window mode; Triggers when signal above level in State mode
Negative	2	Triggers on negative slope; Triggers when signal goes outside window in Window mode; Triggers when signal below level in State mode
Both	3	Triggers on positive and negative slope

See Also

Reference

Elsys.TransPC.Devices Namespace

EasyTriggerFlags Enumeration

Trigger flags for the TPC_SetTrigger function, flags can be combined with the or-operator

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
[FlagsAttribute]
public enum EasyTriggerFlags
```

Members

None	0	Disables Input Multiplier and all AND trigger assignments
ANDGroup1	1	Adds Input to AND Group 1
ANDGroup2	2	Adds Input to AND Group 2
ANDGroup3	4	Adds Input to AND Group 3
ANDGroup4	8	Adds Input to AND Group 4
InputMultiplier	16	Input multiplier on
ShowMultipliedSignal	32	Show also multiplied signal (use in conjuction with tpc_etrgInputMultiplier)
SetMasterDisable	64	Set the master disable trigger flag
IgnoreLevelAndTime	128	Only set trigger and comperator modes. Level, Hysteresis and Time Parameters are not changed.

See Also

Reference

Elsys.TransPC.Devices Namespace

EasyTriggerMode Enumeration

Trigger modes for the TPC_SetTrigger function

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum EasyTriggerMode
```

Members

Slope	0	Slope Trigger; Time parameters are ignored
SlewRate	2	Slew rate; All parameters except Hysteresis and Time are ignored
LongPulse	4	Detects long pulses, Pulse>T; Time2 parameter is ignored
ShortPulse	8	Detects short pulses, Pulse<T; Time2 parameter is ignored
LongPeriod	12	Detects long periods, Period>T; Time2 parameter is ignored
ShortPeriod	16	Detects short periods, Period<T; Time2 parameter is ignored
EqualPulse	32	Detects pulses Time2 < Pulse < Time
NotEqualPulse	36	Detects pulses Time2 > Pulse || Pulse > Time
LongDelay	40	Detect delays between 2 channels > T; Time2 parameter is ignored
ShortDelay	44	Detect delays between 2 channels < T; Time2 parameter is ignored
EqualDelay	48	Detect delays between 2 channels Time2 < Delay < Time
NotEqualDelay	52	Detect delays between 2 channels Time2 > Delay > Time
EqualPeriod	56	Detect periodes Time2 < Period < Time
NotEqualPeriod	60	Detect periodes Time2 > Period || Period > Time
Window	256	WindowTrigger; Parameter Level holds one level, Hysteresis holds the other level, time parameters are ignored
State	257	State Trigger; All parameters except level are ignored
Off	32,768	No trigger will be detected on this channel

See Also

Reference

Elsys.TransPC.Devices Namespace

EnvelopeData Class

Holds envelope data (min/max pairs).

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class EnvelopeData
```

Inheritance **Object** → `EnvelopeData`

Properties

Length	The number of envelope packets.
Max	An array of maximum values for each envelope packet.
Min	An array of minimum values for each envelope packet.

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
ToString	Returns a string that represents the current object. (Inherited from **Object**)

See Also

Reference

Elsys.TransPC.Devices Namespace

EnvelopeData.Length Property

The number of envelope packets.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int Length { get; }
```

Property Value

Int32

See Also

Reference

EnvelopeData Class

Elsys.TransPC.Devices Namespace

EnvelopeData.Max Property

An array of maximum values for each envelope packet.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double[] Max { get; }
```

Property Value

Double[]

See Also

Reference

EnvelopeData Class

Elsys.TransPC.Devices Namespace

EnvelopeData.Min Property

An array of minimum values for each envelope packet.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double[] Min { get; }
```

Property Value

Double[]

See Also

Reference

EnvelopeData Class

Elsys.TransPC.Devices Namespace

EnvelopeRawData Class

Holds raw binary envelope data (min/max pairs).

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class EnvelopeRawData
```

Inheritance **Object** → `EnvelopeRawData`

Properties

Length	The number of envelope packets.
Max	An array of maximum values for each envelope packet.
Min	An array of minimum values for each envelope packet.

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
ToString	Returns a string that represents the current object. (Inherited from **Object**)

See Also

Reference

Elsys.TransPC.Devices Namespace

EnvelopeRawData.Length Property

The number of envelope packets.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int Length { get; }
```

Property Value

Int32

See Also

Reference

EnvelopeRawData Class

Elsys.TransPC.Devices Namespace

EnvelopeRawData.Max Property

An array of maximum values for each envelope packet.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int[] Max { get; }
```

Property Value

Int32[]

See Also

Reference

EnvelopeRawData Class

Elsys.TransPC.Devices Namespace

EnvelopeRawData.Min Property

An array of minimum values for each envelope packet.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int[] Min { get; }
```

Property Value

Int32[]

See Also

Reference

EnvelopeRawData Class

Elsys.TransPC.Devices Namespace

ErrorCode Enumeration

Error codes used by the TpcAccess functions.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum ErrorCode
```

Members

NoError	0	Code for 'no error'.
Calibrating	1	The device is perfoming an auto calibration and cannot carry out the requested operation.
NoConnection	2	The network connection to the device is broken.
ServerClientVersionConflict	3	The software version of the device does not match this version of TpcAccess.
DeviceInitializationFailure	4	The device could not be initialized properly. This is probably a problem with the software installation on the device.
HardwareFailure	5	There is a problem with the hardware or the driver installation. Access the device with a web browser to get more information.
TransmissionError	6	A network error occurred while communicating with the device.
StartError	7	The device did not confirm the measurement start. This indicates a problem with the SyncLink or the StarHub.
IncompatibleBoards	8	(reserved) The boards are incompatible for clustering.
InvalidDeviceIx	9	An invalid device index was passed to a function.
InvalidBoardAddress	10	An invalid board address of a non-existent board was passed to a function.
InvalidInputNumber	11	An invalid input number of a non-existent input was passed to a function.
InvalidIndex	12	An invalid index (out of range) was passed to a function.
BufferTooShort	13	The returned string had to be truncated because the given buffer was too short. (This error code appears only in the native DLL. The .NET wrapper handles this autmatically.)
InvalidParameter	14	The parameter index is not one of the possible values defined in Parameter.
InvalidParameterValue	15	This error is returned for mode parameters on an attempt to set an invalid mode. - The number is not an integer or not one of the possible options. - The hardware does not have the required option installed.

InvalidCommand	16	The command index is not one of the possible values defined in SystemCommand.
WrongSystemState	17	The command cannot be performed because the system is not in the correct state. For example, the start command cannot be given if a measurement is already in progress.
InvalidBlockNumber	18	An invalid block number was passed to a function. The specified block does not exist or has not been recorded yet.
NoData	19	Trying to read data from an inactive input. An input is inactive when its mode is set to 'Off', or when it is used as partner for a differential input. This error is also returned when trying to read data when no measurement has been made after device initialization.
NewMeasurement	20	The data does no longer exist because a new measurement has been started. This happens when a client is trying to read out data, but has not noticed at that time that already a new measurement has been started (probably by another client), because the update of the system state was delayed in the network. This problem can be detected because the client still uses the old measurementNumber parameter. The application should prepare itself for using new data from a fresh measurement, get the new measurementNumber from the device status and use that for retrieving the new data.
LoadSettingFile	21	The configuration file could not be loaded.
WriteSettingFile	22	The configuration file could not be saved.
NotImplemented	23	The feature or function is not implemented yet.
InternalError	24	An unexpected internal error occurred.

See Also

Reference

Elsys.TransPC.Devices Namespace

ExternalTriggerMode Enumeration

External trigger input modes. To be used with ExternalTriggerMode.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum ExternalTriggerMode
```

Members

Off	0	External trigger input does not trigger.
PositiveSlope	1	Triggers on a positive slope.
NegativeSlope	2	Triggers on a negative slope.

See Also

Reference

Elsys.TransPC.Devices Namespace

ExternStartState Enumeration

External start status enumeration.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum ExternStartState
```

Members

Disarmed	0	External start signal is not active.
Armed	1	External start signal is active.

See Also

Reference

Elsys.TransPC.Devices Namespace

FilterMode Enumeration

Filter modes. To be used with FilterMode.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum FilterMode
```

Members

Off	0	No filter is used.
RC1	1	The first RC filter is used.
RC2	2	The second RC filter is used.
Module	3	The filter module is used.

See Also

Reference

Elsys.TransPC.Devices Namespace

IEPEStatus Enumeration

IEPE Connection State

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
[FlagsAttribute]
public enum IEPEStatus
```

Members

IEPE_off	0	IEPE off
IEPE_nosensor	1	IEPE on, but no sensor connected
IEPE_ok	2	IEPE on, sensor connected

See Also

Reference

Elsys.TransPC.Devices Namespace

Input Class

Represents a single input of a TransPC board.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class Input
```

Inheritance **Object** → `Input`

Properties

AmplifierSettings	Gets the input settings that will be used for the next measurement.
Board	Gets the board that this input belongs to.
Device	Gets the device that this input belongs to.
IEPEState	Indicateds the IEPE connection status
Info	Gets information about the hardware of this input.
InputNumber	Gets the input number of this input (0-based).
NewDataArrived	True if new data is available. Can be set by the user.
OverloadStatusLive	Indicates if the ADC is currently overloaded.
OverloadStatusMeasurement	Indicates wether an overload of the ADC happened during the measurement.
PreviousAmplifierSettings	Gets the input settings that were used at the start of the current measurement.
PreviousTriggerSettings	Gets the trigger settings that were used at the start of the current measurement.
RecordedBlocks	Gets a collection of all recorded blocks during the current or last measurement for this input.
TransPCSystem	Gets the system that this input belongs to.
TriggerSettings	Gets the trigger settings that will be used for the next measurement.

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetAssociatedChannels	Gets a list of all associated channels.
GetAttribute	Get an attribute for this input.

GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetMetaDataAssociatedChannels	Gets the list of all associated channels at the start of the current measurement.
GetMetaDataAttribute	Get an attribute for this input.
GetMetaDataParameter	Classic method to get a parameter at the time of start of the current measurement.
GetParameter	Classic method to get a parameter.
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
GetYMetaData	Gets the Y meta data.
SetAssociatedChannels	Sets the list of associated channels.
SetAttribute	Set an attribute for this input.
SetParameter	Classic method to set a parameter.
SetTrigger	Sets the channels trigger mode to the specified settings.
ToString	Returns a **String** that represents the current **Object**. (Overrides Object**.**ToString**()**)

See Also

Reference

Elsys.TransPC.Devices Namespace

Input.AmplifierSettings Property

Gets the input settings that will be used for the next measurement.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public AmplifierSettings AmplifierSettings { get; }
```

Property Value

AmplifierSettings

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.Board Property

Gets the board that this input belongs to.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public Board Board { get; }
```

Property Value

Board

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.Device Property

Gets the device that this input belongs to.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public Device Device { get; }
```

Property Value

Device

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.IEPEState Property

Indicateds the IEPE connection status

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public IEPEStatus IEPEState { get; set; }
```

Property Value

IEPEStatus

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.Info Property

Gets information about the hardware of this input.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public InputInfo Info { get; }
```

Property Value

InputInfo

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.InputNumber Property

Gets the input number of this input (0-based).

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int InputNumber { get; }
```

Property Value

Int32

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.NewDataArrived Property

True if new data is available. Can be set by the user.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool NewDataArrived { get; set; }
```

Property Value

Boolean

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.OverloadStatusLive Property

Indicates if the ADC is currently overloaded.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public ADCOverloadState OverloadStatusLive { get; set; }
```

Property Value

ADCOverloadState

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.OverloadStatusMeasurement Property

Indicates wether an overload of the ADC happened during the measurement.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public ADCOverloadState OverloadStatusMeasurement { get; set; }
```

Property Value

ADCOverloadState

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.PreviousAmplifierSettings Property

Gets the input settings that were used at the start of the current measurement.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public AmplifierSettings PreviousAmplifierSettings { get; }
```

Property Value

AmplifierSettings

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.PreviousTriggerSettings Property

Gets the trigger settings that were used at the start of the current measurement.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public TriggerSettings PreviousTriggerSettings { get; }
```

Property Value

TriggerSettings

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.RecordedBlocks Property

Gets a collection of all recorded blocks during the current or last measurement for this input.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public RecordedBlocksCollection RecordedBlocks { get; }
```

Property Value

RecordedBlocksCollection

The collection of recorded blocks.

Remarks

In ECR single recording mode, each input has a different list of recorded blocks. In Non-ECR mode, all inputs of the same cluster share the same list of recorded blocks.

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.TransPCSystem Property

Gets the system that this input belongs to.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public TransPCSystem TransPCSystem { get; }
```

Property Value

TransPCSystem

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.TriggerSettings Property

Gets the trigger settings that will be used for the next measurement.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public TriggerSettings TriggerSettings { get; }
```

Property Value

TriggerSettings

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.GetAssociatedChannels Method

Gets a list of all associated channels.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public Input[] GetAssociatedChannels()
```

Return Value

Input[]

A list of all associated channels.

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.GetAttribute Method

Get an attribute for this input.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public string GetAttribute(
       string key
)
```

Parameters

key **String**

The attribute to get.

Return Value

String

The current value of the attribute. If the attribute is not defined, "" is returned.

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.GetMetaDataAssociatedChannels Method

Gets the list of all associated channels at the start of the current measurement.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public AssociatedChannel[] GetMetaDataAssociatedChannels()
```

Return Value

AssociatedChannel[]
A list of all associated channels at the start of the current measurement.

See Also

Reference

Input Class
Elsys.TransPC.Devices Namespace

Input.GetMetaDataAttribute Method

Get an attribute for this input.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public string GetMetaDataAttribute(
       string key
)
```

Parameters

key **String**

The attribute to get.

Return Value

String

The current value of the attribute. If the attribute is not defined, "" is returned.

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.GetMetaDataParameter Method

Classic method to get a parameter at the time of start of the current measurement.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double GetMetaDataParameter(
       Parameter parameter
)
```

Parameters

parameter Parameter

The parameter.

Return Value

Double

The value of the parameter.

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.GetParameter Method

Classic method to get a parameter.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double GetParameter(
       Parameter parameter
)
```

Parameters

parameter Parameter

The parameter.

Return Value

Double

The value of the parameter.

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.GetYMetaData Method

Gets the Y meta data.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public YMetaData GetYMetaData()
```

Return Value

YMetaData

Y meata data.

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.SetAssociatedChannels Method

Sets the list of associated channels.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void SetAssociatedChannels(
       Input[] associatedChannels
)
```

Parameters

associatedChannels Input[]

The list of all associated channels. Can be a null reference (`Nothing` in Visual Basic) to clear all associations.

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.SetAttribute Method

Set an attribute for this input.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void SetAttribute(
       string key,
       string value
)
```

Parameters

key **String**
The attribute to set.

value **String**
The value to set.

Remarks

To clear an attribute, set it to "".

The method sends the value immediately to the device, unless it is called between BeginSet() and EndSet().

Exceptions

TransPCException	Thrown when there is a problem with the device or the network communication.

See Also

Reference

Input Class
Elsys.TransPC.Devices Namespace

Input.SetParameter Method

Classic method to set a parameter.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void SetParameter(
       Parameter parameter,
       double value
)
```

Parameters

parameter Parameter

The parameter.

value **Double**

The value.

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.SetTrigger Method

Sets the channels trigger mode to the specified settings.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void SetTrigger(
       EasyTriggerMode mode,
       EasyTriggerComperatorMode compMode,
       EasyTriggerFlags flags,
       double level,
       double hysteresis,
       int time,
       int time2
)
```

Parameters

mode EasyTriggerMode

Trigger Mode, all coming parameters depend on this trigger mode

compMode EasyTriggerComperatorMode

Comperator Mode

flags EasyTriggerFlags

Flags, used to enable AND mask or trigger multiplier

level **Double**

Trigger Level in Volt

hysteresis **Double**

Trigger Hysteresis in Volt

time **Int32**

Time used for time triggers in Samples

time2 **Int32**

Time2 used for time triggers in Samples

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

Input.ToString Method

Returns a **String** that represents the current **Object**.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public override string ToString()
```

Return Value

String

A **String** that represents the current **Object**.

See Also

Reference

Input Class

Elsys.TransPC.Devices Namespace

InputCoupling Enumeration

Input couplings. To be used with InputCoupling.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum InputCoupling
```

Members

DC	0	DC coupling.
AC	1	AC coupling.
Icp	3	ICP coupling (Integrated Current Power, 4 mA constant current power supply for piezo sensors).
DC50	4	DC coupling with 50 Ohm Impedance.
AC50	5	AC coupling with 50 Ohm Impedance.
CHARGE	6	Charge Input Coupling

See Also

Reference

Elsys.TransPC.Devices Namespace

InputInfo Class

Holds information about the hardware of an input and its capabilities.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class InputInfo
```

Inheritance **Object** → `InputInfo`

Properties

AdcResolutionInBits	Resolution of the ADC in Bits.
ChargeRanges	Get supported charge input ranges
HardwareVersion	Hardware version of the input.
HasDifferentialModuleType1	Gets a value indicating whether this input has the differential module type 1.
HasFilterModuleType1	Gets a value indicating whether this input has the filter module type 1.
InputClass	Class indicator for the input. Currently 1.
InputRanges	Get supported voltage input ranges
MaximumAdcSpeed	Max. speed of the ADC in Hertz.
Supports50Ohm	Gets a value indicating whether this input supports 50 Ohm.
SupportsCharge	
SupportsIcp	Gets a value indicating whether this input supports icp.
SupportsOffsetFullRange	Gets a value indicating whether the input supports the full range offset option.
SupportsProgIcp	Gets a value indicating whether this input supports programmable current with ICP .

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
ToString	Returns a **String** that represents the current **Object**. (Overrides Object**.**ToString**()**)

See Also

Reference

Elsys.TransPC.Devices Namespace

InputInfo.AdcResolutionInBits Property

Resolution of the ADC in Bits.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int AdcResolutionInBits { get; }
```

Property Value

Int32

See Also

Reference

InputInfo Class

Elsys.TransPC.Devices Namespace

InputInfo.ChargeRanges Property

Get supported charge input ranges

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int[] ChargeRanges { get; }
```

Property Value

Int32[]

See Also

Reference

InputInfo Class

Elsys.TransPC.Devices Namespace

InputInfo.HardwareVersion Property

Hardware version of the input.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public Version HardwareVersion { get; }
```

Property Value

Version

See Also

Reference

InputInfo Class

Elsys.TransPC.Devices Namespace

InputInfo.HasDifferentialModuleType1 Property

Gets a value indicating whether this input has the differential module type 1.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool HasDifferentialModuleType1 { get; }
```

Property Value

Boolean

See Also

Reference

InputInfo Class

Elsys.TransPC.Devices Namespace

InputInfo.HasFilterModuleType1 Property

Gets a value indicating whether this input has the filter module type 1.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool HasFilterModuleType1 { get; }
```

Property Value

Boolean

See Also

Reference

InputInfo Class

Elsys.TransPC.Devices Namespace

InputInfo.InputClass Property

Class indicator for the input. Currently 1.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int InputClass { get; }
```

Property Value

Int32

See Also

Reference

InputInfo Class

Elsys.TransPC.Devices Namespace

InputInfo.InputRanges Property

Get supported voltage input ranges

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double[] InputRanges { get; }
```

Property Value

Double[]

See Also

Reference

InputInfo Class

Elsys.TransPC.Devices Namespace

InputInfo.MaximumAdcSpeed Property

Max. speed of the ADC in Hertz.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int MaximumAdcSpeed { get; }
```

Property Value

Int32

See Also

Reference

InputInfo Class
Elsys.TransPC.Devices Namespace

InputInfo.Supports50Ohm Property

Gets a value indicating whether this input supports 50 Ohm.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool Supports50Ohm { get; }
```

Property Value

Boolean

See Also

Reference

InputInfo Class

Elsys.TransPC.Devices Namespace

InputInfo.SupportsCharge Property

[Missing <summary> documentation for "P:Elsys.TransPC.Devices.InputInfo.SupportsCharge"]

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool SupportsCharge { get; }
```

Property Value

Boolean

See Also

Reference

InputInfo Class

Elsys.TransPC.Devices Namespace

InputInfo.SupportsIcp Property

Gets a value indicating whether this input supports icp.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool SupportsIcp { get; }
```

Property Value

Boolean

See Also

Reference

InputInfo Class

Elsys.TransPC.Devices Namespace

InputInfo.SupportsOffsetFullRange Property

Gets a value indicating whether the input supports the full range offset option.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool SupportsOffsetFullRange { get; }
```

Property Value

Boolean

See Also

Reference

InputInfo Class

Elsys.TransPC.Devices Namespace

InputInfo.SupportsProgIcp Property

Gets a value indicating whether this input supports programmable current with ICP .

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool SupportsProgIcp { get; }
```

Property Value

Boolean

See Also

Reference

InputInfo Class

Elsys.TransPC.Devices Namespace

InputInfo.ToString Method

Returns a **String** that represents the current **Object**.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public override string ToString()
```

Return Value

String

A **String** that represents the current **Object**.

See Also

Reference

InputInfo Class

Elsys.TransPC.Devices Namespace

InputMode Enumeration

Input modes. To be used with InputMode.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum InputMode
```

Members

Off	0	The input does not record data.
SingleEnded	1	Single ended input.
Differential	2	Differential input.

See Also

Reference

Elsys.TransPC.Devices Namespace

Parameter Enumeration

Recording parameter.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum Parameter
```

Remarks

'Parameter' is just a collective name for settings in the form of double numbers that are assigned with a single input (channel parameters, e.g. input voltage range), or a cluster of the system (timebase parameters, e.g. sample rate).

There are two kinds of parameters: Mode parameters and value parameters. Mode parameters set a certain mode of operation, e.g. the trigger mode or the filter mode. They use integer constants to specify the mode. Value parameters set a numerical value like the sample rate or the input range. The main difference between mode and value parameters is in the error handling when trying to set invalid values for the parameter. Mode parameters return an error if a invalid number is given. Value parameters just restrict the value to the closest possible one and no error is returned.

Members

OperationMode	1	Block, Continuous, Event Recorder, etc.
MultiplexerMode	2	Channel Multiplexer, 4 or 8.
TimebaseSource	3	Sample rate clock source: Internal or External. See TimeBaseSource.
SamplingFrequency	4	Sampling frequency in Hertz. In effect when TimebaseSource = internal. Valid values from 1 Hz to the maximum speed of the board or cluster.
ExternalClockDivisor	5	Divisor for external clock input. In effect when TimebaseSource = External. Valid values: 1..65535
ExternalTriggerMode	6	External trigger input: Off, PositiveSlope, NegativeSlope. See ExternalTriggerMode.
BlkNumberOfBlocks	7	Number of blocks to record. Valid values from 1 to the memory size of the board or the cluster divided by the block length.
BlkBlockLength	8	Block length in samples. Valid values are powers of two from 1024 up to the memory size of the board or the cluster.
BlkTriggerDelay	9	Trigger delay in percent of the block length. Valid values from -100 to +200%.

ContMaximumDataLength	10	Limits the maximum amount of data in samples to be recorded. Valid values from 1 to 1e18.
ContStopTrailer	11	Number of samples to record after a stop trigger. In effect when the stop trigger option for Continuous mode is used. Valid values from 1 up to the memory size of the board or the cluster.
EcrMaximumNumberOfBlocks	14	Limits the number of blocks to record. Valid values from 1 to 2e9.
EcrHoldOffTime	15	Hold off time in samples. Valid values from 1 to 1e18.
EcrMaximumBlockLength	16	Limits the length of a block. In effect when the retrigger option for Event recorder mode is used. Valid values from 1 to 1e18.
EcrRetriggerTime	17	Retrigger time in samples. In effect when the retrigger option for Event recorder mode is used. Valid values from 1 to 1e18.
EcrTrailer	18	Number of samples to record after a stop trigger. Valid values >= 0. In effect when the stop trigger option for Event recorder mode is used. Valid values from 1 to 1e18.
EcrClockDivisor	19	Divisor for the sample rate of the continuous recording in dual mode. Valid values >= 1. In effect when the dual mode option for Event recorder mode is used. Valid values from 1 to 2e9.
InputMode	20	Input mode: Off, Single ended, Differential. See InputMode.
TriggerOnly	21	Option to disable data recording for the channel in ECR and Continuous mode. Valid values: 0:channel produces data, 1:channel does not produce data, but can still cause a trigger.
InputCoupling	22	Input coupling: DC, AC, ICP, Charge. See InputCoupling
Range	23	Input voltage range in Volt. Valid values: 0.1, 0.2, 0.5, 1, 2, 5, 10, 20, 50, 100.
Offset	24	Input range offset in percent. Valid values from 0 to 100%.
Invert	25	Invert input range. Valid values: 0: Off, no inversion, 1: On, invert
FilterMode	26	Filter mode: Off, 22kHz RC filter, 200kHz RC filter, Filter Module. See FilterMode.
FilterFreq	27	Filter frequency in Hertz. Valid values: A set of frequencies between 200Hz and 5MHz. In effect when filterMode = FilterMode.Module.
AveragingMode	28	Input averaging: Off, 14bit, 16bit. See AveragingMode. Please note: This option cannot be selected individually for each input. The setting applies to all inputs of a board.
PhysFactor	29	Factor for the conversion from volt to user selected physical unit. value in physical unit = value in volt * factor + constant.
PhysConstant	30	Constant for the conversion from volt to user selected physical unit. value in physical unit = value in volt * factor + constant.

TrgMode	31	Trigger mode.
TrgComparatorMode	32	Trigger comparator mode: Off, PositiveSlope, NegativeSlope, BothSlopes, WindowOut, WindowIn. See ComparatorMode. 'Off' disables the trigger for this channel.
TrgLevelA	33	First trigger level in percent of full input range. Valid values are from -100 to +100%.
TrgLevelB	34	Second trigger level in percent of full input range. Valid values are from -100 to +100%.
TrgTimerTSamples	35	Timeout for trigger timer in samples (t2). Valid values from 1 to 65535.
TrgSlewRateDTSamples	36	Delta-T in samples for the differentiator. Valid values from 1 to 1024.
TrgComparator2Mode	37	Trigger mode for the second comparator: Off, PositiveSlope, NegativeSlope, BothSlopes, WindowOut, WindowIn. See ComparatorMode.
TrgLevel2A	38	Trigger level for the second comarator in percent of full input range. Valid values are from -100 to +100%.
TrgLevel2B	39	Trigger level for the second comarator in percent of full input range. Valid values are from -100 to +100%.
DualModeStopTrgComparatorMode	40	Comparator mode for stop trigger: Off, PositiveSlope, NegativeSlope, BothSlopes, WindowOut, WindowIn. See ComparatorMode. 'Off' disables the stop trigger for this channel. In effect when the stop trigger option for Event recorder mode is used.
DualModeStopTrgLevelA	41	First level for the stop trigger in percent of full input range. Valid values are from -100 to +100%. In effect when the stop trigger option for Event recorder mode is used and the trigger comparator mode is not 'Off'.
DualModeStopTrgLevelB	42	Second level for the stop trigger in percent of full input range. Valid values are from -100 to +100%. In effect when the stop trigger option for Event recorder mode is used and the trigger comparator mode is not 'Off'.
ScopeAutoTrigger	43	Auto trigger for scope mode. If this value is 0, waits until the signal triggers. If this value is 1, automatically fires a trigger after some time if the signal does not trigger.
ScopeSingleShot	44	Single shot mode for scope mode. If this value is 0, acquisitions are continuously restarted. If this value is 1, stops after each acquisition.
TrgSlewRateHysteresis	45	Hysteresis for slew rate trigger.
ExternalClockSamplingFrequency	46	Sampling frequency in Hertz that is applied to the external clock input when measuring with external clock. In effect when TimebaseSource = external. Valid values >= 0.

ContEnableStopTrigger	47	Enable stop trigger in continuous mode. Valid values: 0: disabled, 1: enabled
ContEnableRecLengthLimit	48	Enable recording limit for continuous mode. Valid values: 0: disabled, 1: enabled
ScopeBlockLength	49	Block length in samples. Valid values are powers of two from 1024 up to half of the memory size of the board.
ScopeTriggerDelay	50	Trigger delay in percent of the block length. Valid values from -100 to +200%.
EcrEnableHoldOff	51	Enable hold off. Valid values: 0: disabled, 1: enabled
EcrDualEnableTrailer	52	Enable trailer in dual mode. Valid values: 0: disabled, 1: enabled
EcrDualTrailer	53	Number of samples to record after the trigger of the last ECR block. Valid values >= 0.
EcrDualEnableRecLengthLimit	54	Enable recording limit in dual mode. Valid values: 0: disabled, 1: enabled
EcrDualMaxRecLength	55	Limits the maximum amount of data in samples to be recorded in dual mode. Valid values >= 1
EcrPreTrigger	56	ECR Pretrigger in samples. Valid values >= 0.
EcrPostTrigger	57	ECR Posttrigger in Samples. Valid values >= 0.
EcrEnableStopTrigger	58	Enable stop trigger in ECR mode. Valid values: 0: disabled, 1: enabled
EcrEnableRetrigger	59	Enable retrigger in ECR mode. Valid values: 0: disabled, 1: enabled
EcrDualMode	60	Dual mode for ECR single and multi. If this value is 0, Dual Mode is disabled. If this value is 1, Dual Mode is enabled.
TrgSlewRateComparatorMode	61	Trigger comparator mode: PositiveSlope, NegativeSlope, BothSlopes. See ComparatorMode. Comparator Mode for Slew Rate Trigger Mode.
TrgShowProduct	62	Show also the multiplied signal (only if trigger multiplier is used (see \ref tpc_trgInputMultiplier))
TrgANDMask	63	Set the AND trigger mask for configuring the AND trigger groups. Each of the 4 or 8 board inputs can be assigned to one or several AND trigger groups. Trigger events from these inputs are linked together and were forwarded once all triggers of the assigned group inputs have triggered. Trigger signals coming from the AND trigger groups are linked together by an OR logic. The ANDTriggerMask is a 32 bit variable. Bit 7 to 0 configures group 1, Bit 15 to 8 configures group 2, bit 23 to 16 configures group 3 and bit 31 to 24 configures group 4. A channel is assigned to a group by setting

		a the corresponding bit to 1. Example: 0x0000030C is assigning channel 1 and 2 to group 2 and channel 3 and 4 to group 1.
TrgTimerT1Samples	64	Timeout for t1 trigger timer in samples. Valid values from 1 to 65535.
ResetOverload	65	Flag to reset the overload state of one single input.
ExternalTimebaseOutFrequency	66	External Timebase frequency which can be used for a external device as a synchronisation signal. (Example: High Speed Camera)
EnableGPSSync	67	Flag to enable (1) or disable (0) GPS synchronization between a device compound over the network.
LXIMsgConfig	68	Flag to configure the LAN trigger settings. - Generate LAN Trigger 0x1 - Receive LAN Trigger 0x2 - Generate and Receive LAN Trigger 0x3
TrgDigPosSlope	69	Enable Trigger Mask for digital positive Slope Trigger
TrgDigNegSlope	70	Enable Trigger Mask for digital negative Slope Trigger
ReservedParam1	71	Reserved Parameters for customer projects
ReservedParam2	72	Reserved Parameter from customer project
TrgDigPls	73	Enable Trigger Mask for pulse trigger on digital inputs
GPSMode	74	GPS Logging mode
GPSTimer	75	GPS Log Intervale
SyncPingMode	76	Set Sync Ping Mode on/off
SyncDelay	77	Set SyncLink 2 Delay
IEPECurrent	78	
ChargeMode	79	Set Charge Amplifier Mode 0 = Measure, 1 = Reset

See Also

Reference

Elsys.TransPC.Devices Namespace

RecordedBlocksCollection Class

Represents a list of recorded blocks.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class RecordedBlocksCollection : IList<RecordedDataBlock>,
      ICollection<RecordedDataBlock>, IEnumerable<RecordedDataBlock>, IEnumerable
```

Inheritance	**Object** → `RecordedBlocksCollection`
Implements	**ICollection**(RecordedDataBlock), **IEnumerable**(RecordedDataBlock), **IList**(RecordedDataBlock), **IEnumerable**

Properties

Count	Gets the number of elements contained in the ICollection**(**T**)**.
IsReadOnly	Gets a value indicating whether the ICollection**(**T**)** is read-only.
Item	Gets the element at the specified index.

Methods

CopyTo	Copies the elements of the ICollection**(**T**)** to an **Array**, starting at a particular **Array** index.
Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetEnumerator	Returns an enumerator that iterates through the collection.
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetTimeRange	Get the time range that is covered by all blocks contained in this collection.
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
ToString	Returns a string that represents the current object. (Inherited from **Object**)

See Also

Reference

Elsys.TransPC.Devices Namespace

RecordedBlocksCollection.Count Property

Gets the number of elements contained in the ICollection**(**T**)**.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int Count { get; }
```

Return Value

Int32
The number of elements contained in the ICollection**(**T**)**.

Implements

ICollection**(**T**).**Count

See Also

Reference

RecordedBlocksCollection Class
Elsys.TransPC.Devices Namespace

RecordedBlocksCollection.IsReadOnly Property

Gets a value indicating whether the ICollection**(**T**)** is read-only.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool IsReadOnly { get; }
```

Return Value

Boolean

true if the ICollection**(**T**)** is read-only; otherwise, false.

Implements

ICollection**(**T**).**IsReadOnly

See Also

Reference

RecordedBlocksCollection Class

Elsys.TransPC.Devices Namespace

RecordedBlocksCollection.Item Property

Gets the element at the specified index.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public RecordedDataBlock this[
       int index
] { get; }
```

Parameters

index **Int32**

The zero-based index of the element to get or set.

Return Value

RecordedDataBlock

The element at the specified index.

Exceptions

ArgumentOutOfRangeException	index is not a valid index in the IList**(**T**)**.

See Also

Reference

RecordedBlocksCollection Class

Elsys.TransPC.Devices Namespace

RecordedBlocksCollection.CopyTo Method

Copies the elements of the ICollection**(**T**)** to an **Array**, starting at a particular **Array** index.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void CopyTo(
       RecordedDataBlock[] array,
       int arrayIndex
)
```

Parameters

array RecordedDataBlock[]

The one-dimensional **Array** that is the destination of the elements copied from ICollection**(**T**)**. The **Array** must have zero-based indexing.

arrayIndex **Int32**

The zero-based index in array at which copying begins.

Implements

ICollection**(**T**).**CopyTo(T**[]**, Int32)

Exceptions

ArgumentOutOfRangeException	arrayIndex is less than 0.
ArgumentNullException	array is null.
ArgumentException	array is multidimensional.-or-arrayIndex is equal to or greater than the length of array.-or-The number of elements in the source ICollection**(**T**)** is greater than the available space from arrayIndex to the end of the destination array.-or-Type T cannot be cast automatically to the type of the destination array.

See Also

Reference

RecordedBlocksCollection Class

Elsys.TransPC.Devices Namespace

RecordedBlocksCollection.GetEnumerator Method

Returns an enumerator that iterates through the collection.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public IEnumerator<RecordedDataBlock> GetEnumerator()
```

Return Value

IEnumerator(RecordedDataBlock)
A IEnumerator**(**T**)** that can be used to iterate through the collection.

Implements

IEnumerable**(**T**).**GetEnumerator**()**

See Also

Reference

RecordedBlocksCollection Class
Elsys.TransPC.Devices Namespace

RecordedBlocksCollection.GetTimeRange Method

Get the time range that is covered by all blocks contained in this collection.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void GetTimeRange(
       out double min,
       out double max
)
```

Parameters

min **Double**

The least time where a block of this collection has data.

max **Double**

The greatest time where a block of this collection has data.

See Also

Reference

RecordedBlocksCollection Class

Elsys.TransPC.Devices Namespace

RecordedDataBlock Class

Represents one recorded data block of an Input. See RecordedBlocks.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class RecordedDataBlock
```

Inheritance **Object** → `RecordedDataBlock`

Properties

AmplifierSettings	Gets the input settings that were used to record this block.
BlockNumber	The block number of this block. This is the index into the RecordedBlocks of the Input.
Input	The input that recorded this block.
TMetaData	Gets the TMetaData for this data block.
TriggerSettings	Gets the trigger settings that were used to record this block.
YMetaData	Gets the YMetaData for this data block.

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetAssociatedChannels	Gets a list of all associated channels at the time of recording this block.
GetData(DataType)	Get the data held by this block.
GetData(Int64, Int32, DataType)	Get a part of the data held by this block.
GetEnvelopeData	Get the data held by this block compressed as envelope (min/max pairs).
GetEnvelopeRawData	Get the binary raw data held by this block compressed as envelope (min/max pairs).
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetRawData()	Get the binary raw data held by this block.
GetRawData(Int64, Int32)	Get a part of the binary raw data held by this block.
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)

ToString	Returns a string that represents the current object. (Inherited from **Object**)

See Also

Reference

Elsys.TransPC.Devices Namespace

RecordedDataBlock.AmplifierSettings Property

Gets the input settings that were used to record this block.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public AmplifierSettings AmplifierSettings { get; }
```

Property Value

AmplifierSettings

See Also

Reference

RecordedDataBlock Class

Elsys.TransPC.Devices Namespace

RecordedDataBlock.BlockNumber Property

The block number of this block. This is the index into the RecordedBlocks of the Input.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int BlockNumber { get; }
```

Property Value

Int32

See Also

Reference

RecordedDataBlock Class

Elsys.TransPC.Devices Namespace

RecordedDataBlock.Input Property

The input that recorded this block.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public Input Input { get; }
```

Property Value

Input

See Also

Reference

RecordedDataBlock Class

Elsys.TransPC.Devices Namespace

RecordedDataBlock.TMetaData Property

Gets the `TMetaData` for this data block.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public TMetaData TMetaData { get; }
```

Property Value

TMetaData

See Also

Reference

RecordedDataBlock Class

Elsys.TransPC.Devices Namespace

RecordedDataBlock.TriggerSettings Property

Gets the trigger settings that were used to record this block.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public TriggerSettings TriggerSettings { get; }
```

Property Value

TriggerSettings

See Also

Reference

RecordedDataBlock Class

Elsys.TransPC.Devices Namespace

RecordedDataBlock.YMetaData Property

Gets the `YMetaData` for this data block.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public YMetaData YMetaData { get; }
```

Property Value

YMetaData

See Also

Reference

RecordedDataBlock Class

Elsys.TransPC.Devices Namespace

RecordedDataBlock.GetAssociatedChannels Method

Gets a list of all associated channels at the time of recording this block.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public AssociatedChannel[] GetAssociatedChannels()
```

Return Value

AssociatedChannel[]

A list of all associated channels.

See Also

Reference

RecordedDataBlock Class

Elsys.TransPC.Devices Namespace

RecordedDataBlock.GetData(DataType) Method

Get the data held by this block.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double[] GetData(
       DataType dataType
)
```

Parameters

dataType DataType

The data type (Volt or physical unit).

Return Value

Double[]

An array with the samples.

See Also

Reference

RecordedDataBlock Class

Elsys.TransPC.Devices Namespace

RecordedDataBlock.GetData(Int64, Int32, DataType) Method

Get a part of the data held by this block.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double[] GetData(
       long startSample,
       int numberOfSamples,
       DataType dataType
)
```

Parameters

startSample **Int64**

The index of the first sample to read.

numberOfSamples **Int32**

The number of samples to read.

dataType DataType

The data type (Volt or physical unit).

Return Value

Double[]

An array with the samples.

See Also

Reference

RecordedDataBlock Class

Elsys.TransPC.Devices Namespace

RecordedDataBlock.GetEnvelopeData Method

Get the data held by this block compressed as envelope (min/max pairs).

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public EnvelopeData GetEnvelopeData(
       long startSample,
       long numberOfSamples,
       int numberOfMinMaxPairs,
       DataType dataType
)
```

Parameters

startSample **Int64**

The index of the first sample to read.

numberOfSamples **Int64**

The number of samples to read.

numberOfMinMaxPairs **Int32**

The number of envelope packets requested.

dataType DataType

The data type (Volt or physical unit).

Return Value

EnvelopeData

An EnvelopeData instance with the envelope packets.

See Also

Reference

RecordedDataBlock Class

Elsys.TransPC.Devices Namespace

RecordedDataBlock.GetEnvelopeRawData Method

Get the binary raw data held by this block compressed as envelope (min/max pairs).

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public EnvelopeRawData GetEnvelopeRawData(
       long startSample,
       long numberOfSamples,
       int numberOfMinMaxPairs
)
```

Parameters

startSample **Int64**

The index of the first sample to read.

numberOfSamples **Int64**

The number of samples to read.

numberOfMinMaxPairs **Int32**

The number of envelope packets requested.

Return Value

EnvelopeRawData

An EnvelopeData instance with the envelope packets.

See Also

Reference

RecordedDataBlock Class

Elsys.TransPC.Devices Namespace

RecordedDataBlock.GetRawData Method

Get the binary raw data held by this block.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int[] GetRawData()
```

Return Value

Int32[]
An array with the samples.

See Also

Reference

RecordedDataBlock Class
Elsys.TransPC.Devices Namespace

RecordedDataBlock.GetRawData(Int64, Int32) Method

Get a part of the binary raw data held by this block.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int[] GetRawData(
       long startSample,
       int numberOfSamples
)
```

Parameters

startSample **Int64**

The index of the first sample to read.

numberOfSamples **Int32**

The number of samples to read.

Return Value

Int32[]

An array with the samples.

See Also

Reference

RecordedDataBlock Class

Elsys.TransPC.Devices Namespace

RecordingState Enumeration

Recording state enumeration.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum RecordingState
```

Members

Aborted	0	The measurement was aborted with a stop command.
Starting	1	The device has been prepared for a new start command.
Recording	2	The recording is in progress.
Stopped	3	The measurement has finished normally.
StartError	4	The device did not start properly (problem with SyncLink or StarHub).

See Also

Reference

Elsys.TransPC.Devices Namespace

RecordingStatus Class

Describes the current recording status of a cluster.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class RecordingStatus
```

Inheritance **Object** → `RecordingStatus`

Properties

BlockCounter	Block mode and event recorder: Number of blocks with valid data, BlockCounter >= 0. Continuous and Dual Mode: This includes the growing block 0, so BlockCounter >= 1.
DataCounter	Continuous and Dual mode: Number of samples recorded so far (available in block 0).
LostCount	Number of times that samples were lost in Continuous or Dual mode (this indicates that the sampling frequency is too high).
LostSamples	Total number of samples lost in Continuous or Dual mode (this indicates that the sampling frequency is too high).
RecordingState	Current recording status. See RecordingState.
TriggerState	Current trigger status. See TriggerState.

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
ToString	Returns a string that represents the current object. (Inherited from **Object**)

See Also

Reference

Elsys.TransPC.Devices Namespace

RecordingStatus.BlockCounter Property

Block mode and event recorder: Number of blocks with valid data, BlockCounter >= 0. Continuous and Dual Mode: This includes the growing block 0, so BlockCounter >= 1.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int BlockCounter { get; }
```

Property Value

Int32

See Also

Reference

RecordingStatus Class

Elsys.TransPC.Devices Namespace

RecordingStatus.DataCounter Property

Continuous and Dual mode: Number of samples recorded so far (available in block 0).

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public long DataCounter { get; }
```

Property Value

Int64

See Also

Reference

RecordingStatus Class

Elsys.TransPC.Devices Namespace

RecordingStatus.LostCount Property

Number of times that samples were lost in Continuous or Dual mode (this indicates that the sampling frequency is too high).

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int LostCount { get; }
```

Property Value

Int32

See Also

Reference

RecordingStatus Class

Elsys.TransPC.Devices Namespace

RecordingStatus.LostSamples Property

Total number of samples lost in Continuous or Dual mode (this indicates that the sampling frequency is too high).

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int LostSamples { get; }
```

Property Value

Int32

See Also

Reference

RecordingStatus Class

Elsys.TransPC.Devices Namespace

RecordingStatus.RecordingState Property

Current recording status. See RecordingState.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public RecordingState RecordingState { get; }
```

Property Value

RecordingState

Remarks

Please note: This field reflects the recording state of the cluster that this board is a member of.

See Also

Reference

RecordingStatus Class

Elsys.TransPC.Devices Namespace

RecordingStatus.TriggerState Property

Current trigger status. See TriggerState.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public TriggerState TriggerState { get; }
```

Property Value
TriggerState

Remarks

In block mode this field reflects the trigger state of the current block. In continuous mode this field reflects the stop trigger state.

See Also

Reference
RecordingStatus Class
Elsys.TransPC.Devices Namespace

SystemCommand Enumeration

Constants for use with ExecuteSystemCommand.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum SystemCommand
```

Members

Start	0	Start the measurement.
Stop	1	Abort the measurement if it is running.
Disarm	2	Disable triggers.
Arm	3	Enable triggers.
Trigger	4	Provoke a trigger from software.
reserved	5	Unknown Command.
ExtStart	6	Start measurement with external Trigger.
ExtStop	7	Abort measurement with external Trigger.
StartGPSSynced	8	Start measurement with a GPS synced device compound.

See Also

Reference

Elsys.TransPC.Devices Namespace

SystemStatus Class

Describes the current overall system state.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class SystemStatus
```

Inheritance **Object** → SystemStatus

Properties

AreAllDevicesOk	True if all devices are responding and OK.
HasMeasurement	`true` (`True` in Visual Basic) if a measurement has been made and data is available.
IsRecordingActive	`true` (`True` in Visual Basic) while a measurement is active.
MeasurementNumber	The number of the measurement that is in progress, or of the last measurement if no measurement is currently active.
MeasurementStartTime	The start time of the measurement that is in progress, or of the last measurement if no measurement is currently active.
TotalDataLosses	Total number of times that data was lost in Dual or Continuous mode in the current or last measurement. This indicates that the sample rate is too high.
TotalRecordedBlocks	Total number of blocks recorded so far if a measurement is active, or total number of blocks of the last measurement if no measurement is currently active.
TotalRecordedSamples	Total number of samples recorded in Dual or Continuous mode in the current or last measurement.

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
ToString	Returns a string that represents the current object. (Inherited from **Object**)

See Also

Reference

Elsys.TransPC.Devices Namespace

SystemStatus.AreAllDevicesOk Property

True if all devices are responding and OK.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool AreAllDevicesOk { get; }
```

Property Value

Boolean

See Also

Reference

SystemStatus Class

Elsys.TransPC.Devices Namespace

SystemStatus.HasMeasurement Property

`true`

(`True` in Visual Basic) if a measurement has been made and data is available.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool HasMeasurement { get; }
```

Property Value

Boolean

See Also

Reference

SystemStatus Class
Elsys.TransPC.Devices Namespace

SystemStatus.IsRecordingActive Property

`true`

(`True` in Visual Basic) while a measurement is active.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool IsRecordingActive { get; }
```

Property Value

Boolean

See Also

Reference

SystemStatus Class
Elsys.TransPC.Devices Namespace

SystemStatus.MeasurementNumber Property

The number of the measurement that is in progress, or of the last measurement if no measurement is currently active.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int MeasurementNumber { get; }
```

Property Value

Int32

See Also

Reference

SystemStatus Class

Elsys.TransPC.Devices Namespace

SystemStatus.MeasurementStartTime Property

The start time of the measurement that is in progress, or of the last measurement if no measurement is currently active.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public DateTime MeasurementStartTime { get; }
```

Property Value

DateTime

See Also

Reference

SystemStatus Class

Elsys.TransPC.Devices Namespace

SystemStatus.TotalDataLosses Property

Total number of times that data was lost in Dual or Continuous mode in the current or last measurement. This indicates that the sample rate is too high.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int TotalDataLosses { get; }
```

Property Value

Int32

See Also

Reference

SystemStatus Class

Elsys.TransPC.Devices Namespace

SystemStatus.TotalRecordedBlocks Property

Total number of blocks recorded so far if a measurement is active, or total number of blocks of the last measurement if no measurement is currently active.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int TotalRecordedBlocks { get; }
```

Property Value

Int32

See Also

Reference

SystemStatus Class

Elsys.TransPC.Devices Namespace

SystemStatus.TotalRecordedSamples Property

Total number of samples recorded in Dual or Continuous mode in the current or last measurement.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public long TotalRecordedSamples { get; }
```

Property Value

Int64

See Also

Reference

SystemStatus Class

Elsys.TransPC.Devices Namespace

TimeBaseMode Enumeration

Determines the basic time base operation mode.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum TimeBaseMode
```

Members

Scope	0	Scope mode.
Block	1	Block mode.
Continuous	2	Continuous mode.
EcrSingle	3	Event recorder single channel mode. Each channel records data individually when a trigger is detected.
SingleBlock	4	Block mode where BlkNumberOfBlocks has no effect (taken as 1).
NoTimeBaseMode	-1	You can choose this option if no device is available
EcrSingleDual	67	Event recorder single channel dual mode. Each channel records data individually when a trigger is detected. Continuous data is also recorded with a lower sample rate.
EcrMulti	131	Event recorder multi channel mode. All channels record data simultaneously when a trigger is detected.
EcrMultiDual	195	Event recorder multi channel dual mode. All channels record data simultaneously when a trigger is detected. Continuous data is also recorded with a lower sample rate.

See Also

Reference

Elsys.TransPC.Devices Namespace

TimeBaseSettings Class

Allows to query or set the time base parameters for a board. See TimeBaseSettings.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class TimeBaseSettings
```

Inheritance **Object** → `TimeBaseSettings`

Properties

ActualSamplingFrequency	The actual sampling frequency used for sampling data. Depending on the TimeBaseSource it is either the SamplingFrequency or ExternalClockSamplingFrequency divided by ExternalClockDivisor.
BlkBlockLength	Block length in samples. Valid values are powers of two from 1024 up to the memory size of the board or the cluster.
BlkNumberOfBlocks	Number of blocks to record. Valid values from 1 to the memory size of the board or the cluster divided by the block length.
BlkTriggerDelay	Trigger delay in percent of the block length. Valid values from -100 to +200%.
ContEnableRecLengthLimit	Enable recording limit for continuous mode. If this value is `true` (`True` in Visual Basic), the recording stops after the limit is reached (ContMaximumDataLength). If this value is `false` (`False` in Visual Basic), the recording continues until it is aborted.
ContEnableStopTrigger	Enable stop trigger in continuous mode. If this value is `true` (`True` in Visual Basic), stop triggers are enabled. If this value is `false` (`False` in Visual Basic), stop triggers are disabled.
ContMaximumDataLength	Limits the maximum amount of data in samples to be recorded. Valid values from 1 to 2^62-1.
ContStopTrailer	Number of samples to record after a stop trigger. In effect when the stop trigger option for Continuous mode is used. Valid values from 1 up to the memory size of the board or the cluster.
EcrDualClockDivisor	Divisor for the sample rate of the continuous recording in dual mode. Valid values >= 1. In effect when the dual mode

	option for Event recorder mode is used. Valid values from 1 to 2^32-1.
EcrDualEnableRecLengthLimit	Enable recording limit for dual mode. If this value is `true` (`True` in Visual Basic), the recording stops after the limit is reached (EcrDualMaxRecLength). If this value is `false` (`False` in Visual Basic), the recording continues until it is aborted.
EcrDualEnableStopAfterAllBlocksRecorded	Enable trailer in dual mode (EcrDualTrailer). If this value is `true` (`True` in Visual Basic), the trailer is enabled. If this value is `false` (`False` in Visual Basic), the trailer is disabled.
EcrDualMaxRecLength	Limits the maximum amount of data in samples to be recorded. Valid values from 1 to 2^62-1.
EcrDualMode	Dual Mode for ECR single and multi If this value is `false` (`False` in Visual Basic), dual mode is disabled. If this value is `true` (`True` in Visual Basic), dual mode is enabled.
EcrDualTrailer	Number of samples to record after the trigger of the last ECR block. Valid values from 0 to 2^32-1.
EcrEnableHoldOff	Enable hold off in ECR mode (EcrHoldOffTime). If this value is `true` (`True` in Visual Basic), hold if time is enabled. If this value is `false` (`False` in Visual Basic), hold if time is disabled.
EcrEnableRetrigger	Retrigger option.
EcrHoldOffTime	Hold off time in samples. Valid values from 1 to 2^32-1.
EcrMaximumBlockLength	Limits the length of a block. In effect when the retrigger option for Event recorder mode is used. Valid values from 1 to 2^62-1.
EcrMaximumNumberOfBlocks	Limits the number of blocks to record. Valid values from 1 to 2^32-1.
EcrPostTriggerSamples	PostTrigger in samples. Valid values from 0 .. 2^32-1.
EcrPreTriggerSamples	PreTrigger in samples. Valid values from 0 .. GetMaximumBlockLength().
EcrRetriggerTime	Retrigger time in samples. In effect when the retrigger option for Event recorder mode is used. Valid values from 1 to 2^32-1.
ExternalClockDivisor	Divisor for external clock input. In effect when TimebaseSource = External. Valid values: 1..65536
ExternalClockSamplingFrequency	Sampling frequency in Hertz that is applied to the external clock input when measuring with external clock. In effect when TimebaseSource = external. Valid values >= 0.
ExternalTimebaseOutFrequency	Enable external Timebase output frequency, 0 = Timebas output is used for Armed signal.

ExternalTriggerMode	External trigger input: Off, PositiveSlope, NegativeSlope. See ExternalTriggerMode.
SamplingFrequency	Sampling frequency in Hertz. In effect when TimebaseSource = internal. Valid values from 1 Hz to the maximum speed of the board or cluster.
ScopeAutoTrigger	Auto trigger for scope mode. If this value is `false` (`False` in Visual Basic), waits until the signal triggers. If this value is `true` (`True` in Visual Basic), automatically fires a trigger after some time if the signal does not trigger.
ScopeBlockLength	Block length in samples. Valid values are powers of two from 1024 up to the 1/2 of memory size of the board or the cluster.
ScopeSingleShot	Single shot mode for scope mode. If this value is `false` (`False` in Visual Basic), acquisitions are continuously restarted. If this value is `true` (`True` in Visual Basic), stops after each acquisition.
ScopeTriggerDelay	Trigger delay in percent of the block length. Valid values from -100 to +200%.
SupportsEcrExtensions	Gets a value indicating whether ECR extensions are suported by all boards whose time base settings are represented by this instance.
TimeBaseMode	Time base mode (Block, Continuous, Event Recorder). See TimeBaseMode.
TimeBaseSource	Sample rate clock source: Internal or External. See TimeBaseSource.

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetClusterInfo	Get information about the capabilities supported by all boards whose time base settings are represented by this instance.
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetMaximumBlockLength	Gets the maximum block length that is suported by all boards whose time base settings are represented by this instance.
GetMaximumSampleFrequency	Gets the maximum sampling frequency that is suported by all boards whose time base settings are represented by this instance.
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
ToString	Returns a string that represents the current object. (Inherited from **Object**)

See Also

Reference

Elsys.TransPC.Devices Namespace

TimeBaseSettings.ActualSamplingFrequency Property

The actual sampling frequency used for sampling data. Depending on the TimeBaseSource it is either the SamplingFrequency or ExternalClockSamplingFrequency divided by ExternalClockDivisor.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double ActualSamplingFrequency { get; }
```

Property Value

Double

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.BlkBlockLength Property

Block length in samples. Valid values are powers of two from 1024 up to the memory size of the board or the cluster.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int BlkBlockLength { get; set; }
```

Property Value

Int32

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.BlkNumberOfBlocks Property

Number of blocks to record. Valid values from 1 to the memory size of the board or the cluster divided by the block length.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int BlkNumberOfBlocks { get; set; }
```

Property Value

Int32

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.BlkTriggerDelay Property

Trigger delay in percent of the block length. Valid values from -100 to +200%.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double BlkTriggerDelay { get; set; }
```

Property Value

Double

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.ContEnableRecLengthLimit Property

Enable recording limit for continuous mode. If this value is `true` (`True` in Visual Basic), the recording stops after the limit is reached (ContMaximumDataLength). If this value is `false` (`False` in Visual Basic), the recording continues until it is aborted.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool ContEnableRecLengthLimit { get; set; }
```

Property Value

Boolean

See Also

Reference

TimeBaseSettings Class
Elsys.TransPC.Devices Namespace

TimeBaseSettings.ContEnableStopTrigger Property

Enable stop trigger in continuous mode. If this value is `true` (`True` in Visual Basic), stop triggers are enabled. If this value is `false` (`False` in Visual Basic), stop triggers are disabled.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool ContEnableStopTrigger { get; set; }
```

Property Value

Boolean

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.ContMaximumDataLength Property

Limits the maximum amount of data in samples to be recorded. Valid values from 1 to 2^62-1.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public long ContMaximumDataLength { get; set; }
```

Property Value

Int64

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.ContStopTrailer Property

Number of samples to record after a stop trigger. In effect when the stop trigger option for Continuous mode is used. Valid values from 1 up to the memory size of the board or the cluster.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public long ContStopTrailer { get; set; }
```

Property Value

Int64

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.EcrDualClockDivisor Property

Divisor for the sample rate of the continuous recording in dual mode. Valid values >= 1. In effect when the dual mode option for Event recorder mode is used. Valid values from 1 to 2^32-1.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public long EcrDualClockDivisor { get; set; }
```

Property Value

Int64

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.EcrDualEnableRecLengthLimit Property

Enable recording limit for dual mode. If this value is `true` (`True` in Visual Basic), the recording stops after the limit is reached (EcrDualMaxRecLength). If this value is `false` (`False` in Visual Basic), the recording continues until it is aborted.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool EcrDualEnableRecLengthLimit { get; set; }
```

Property Value

Boolean

See Also

Reference

TimeBaseSettings Class
Elsys.TransPC.Devices Namespace

TimeBaseSettings.EcrDualEnableStopAfterAllBlocksRecorded Property

Enable trailer in dual mode (EcrDualTrailer). If this value is `true` (`True` in Visual Basic), the trailer is enabled. If this value is `false` (`False` in Visual Basic), the trailer is disabled.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool EcrDualEnableStopAfterAllBlocksRecorded { get; set; }
```

Property Value

Boolean

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.EcrDualMaxRecLength Property

Limits the maximum amount of data in samples to be recorded. Valid values from 1 to 2^62-1.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public long EcrDualMaxRecLength { get; set; }
```

Property Value

Int64

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.EcrDualMode Property

Dual Mode for ECR single and multi If this value is `false` (`False` in Visual Basic), dual mode is disabled. If this value is `true` (`True` in Visual Basic), dual mode is enabled.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool EcrDualMode { get; set; }
```

Property Value

Boolean

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.EcrDualTrailer Property

Number of samples to record after the trigger of the last ECR block. Valid values from 0 to 2^32-1.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public long EcrDualTrailer { get; set; }
```

Property Value

Int64

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.EcrEnableHoldOff Property

Enable hold off in ECR mode (EcrHoldOffTime). If this value is `true` (`True` in Visual Basic), hold if time is enabled. If this value is `false` (`False` in Visual Basic), hold if time is disabled.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool EcrEnableHoldOff { get; set; }
```

Property Value

Boolean

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.EcrEnableRetrigger Property

Retrigger option.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool EcrEnableRetrigger { get; set; }
```

Property Value

Boolean

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.EcrHoldOffTime Property

Hold off time in samples. Valid values from 1 to 2^32-1.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public long EcrHoldOffTime { get; set; }
```

Property Value

Int64

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.EcrMaximumBlockLength Property

Limits the length of a block. In effect when the retrigger option for Event recorder mode is used. Valid values from 1 to 2^62-1.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public long EcrMaximumBlockLength { get; set; }
```

Property Value

Int64

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.EcrMaximumNumberOfBlocks Property

Limits the number of blocks to record. Valid values from 1 to 2^32-1.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public long EcrMaximumNumberOfBlocks { get; set; }
```

Property Value

Int64

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.EcrPostTriggerSamples Property

PostTrigger in samples. Valid values from 0 .. 2^32-1.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public long EcrPostTriggerSamples { get; set; }
```

Property Value

Int64

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.EcrPreTriggerSamples Property

PreTrigger in samples. Valid values from 0 .. GetMaximumBlockLength().

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int EcrPreTriggerSamples { get; set; }
```

Property Value

Int32

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.EcrRetriggerTime Property

Retrigger time in samples. In effect when the retrigger option for Event recorder mode is used. Valid values from 1 to 2^32-1.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public long EcrRetriggerTime { get; set; }
```

Property Value

Int64

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.ExternalClockDivisor Property

Divisor for external clock input. In effect when TimebaseSource = External. Valid values: 1..65536

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int ExternalClockDivisor { get; set; }
```

Property Value

Int32

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.ExternalClockSamplingFrequency Property

Sampling frequency in Hertz that is applied to the external clock input when measuring with external clock. In effect when TimebaseSource = external. Valid values >= 0.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double ExternalClockSamplingFrequency { get; set; }
```

Property Value

Double

Remarks

This value is used to provide a time axis to waveforms measured with external clock. If you apply a constant clock to the external clock input, enter the frequency of this clock with this property.

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.ExternalTimebaseOutFrequency Property

Enable external Timebase output frequency, 0 = Timebas output is used for Armed signal.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double ExternalTimebaseOutFrequency { get; set; }
```

Property Value

Double

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.ExternalTriggerMode Property

External trigger input: Off, PositiveSlope, NegativeSlope. See ExternalTriggerMode.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public ExternalTriggerMode ExternalTriggerMode { get; set; }
```

Property Value

ExternalTriggerMode

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.SamplingFrequency Property

Sampling frequency in Hertz. In effect when TimebaseSource = internal. Valid values from 1 Hz to the maximum speed of the board or cluster.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double SamplingFrequency { get; set; }
```

Property Value

Double

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.ScopeAutoTrigger Property

Auto trigger for scope mode. If this value is `false` (`False` in Visual Basic), waits until the signal triggers. If this value is `true` (`True` in Visual Basic), automatically fires a trigger after some time if the signal does not trigger.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool ScopeAutoTrigger { get; set; }
```

Property Value

Boolean

See Also

Reference

TimeBaseSettings Class
Elsys.TransPC.Devices Namespace

TimeBaseSettings.ScopeBlockLength Property

Block length in samples. Valid values are powers of two from 1024 up to the 1/2 of memory size of the board or the cluster.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int ScopeBlockLength { get; set; }
```

Property Value

Int32

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.ScopeSingleShot Property

Single shot mode for scope mode. If this value is `false` (`False` in Visual Basic), acquisitions are continuously restarted. If this value is `true` (`True` in Visual Basic), stops after each acquisition.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool ScopeSingleShot { get; set; }
```

Property Value

Boolean

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.ScopeTriggerDelay Property

Trigger delay in percent of the block length. Valid values from -100 to +200%.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double ScopeTriggerDelay { get; set; }
```

Property Value

Double

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.SupportsEcrExtensions Property

Gets a value indicating whether ECR extensions are suported by all boards whose time base settings are represented by this instance.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool SupportsEcrExtensions { get; }
```

Property Value

Boolean

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.TimeBaseMode Property

Time base mode (Block, Continuous, Event Recorder). See TimeBaseMode.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public TimeBaseMode TimeBaseMode { get; set; }
```

Property Value

TimeBaseMode

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.TimeBaseSource Property

Sample rate clock source: Internal or External. See TimeBaseSource.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public TimeBaseSource TimeBaseSource { get; set; }
```

Property Value

TimeBaseSource

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.GetClusterInfo Method

Get information about the capabilities supported by all boards whose time base settings are represented by this instance.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public ClusterInfo GetClusterInfo()
```

Return Value

ClusterInfo

a ClusterInfo with information about the capabilities supported by all boards.

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.GetMaximumBlockLength Method

Gets the maximum block length that is suported by all boards whose time base settings are represented by this instance.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int GetMaximumBlockLength()
```

Return Value

Int32

Maximal supproted block length.

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSettings.GetMaximumSampleFrequency Method

Gets the maximum sampling frequency that is suported by all boards whose time base settings are represented by this instance.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double GetMaximumSampleFrequency()
```

Return Value

Double

Maximal supported sampling frequency.

See Also

Reference

TimeBaseSettings Class

Elsys.TransPC.Devices Namespace

TimeBaseSource Enumeration

Time base source. To be used with TimeBaseSource.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum TimeBaseSource
```

Members

Internal	0	Time base is generated from the crystal oscillator.
External	1	Time base is taken from external input.

See Also

Reference

Elsys.TransPC.Devices Namespace

TMetaData Class

t-Axis meta data.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class TMetaData : IComparable
```

Inheritance **Object** → TMetaData

Implements **IComparable**

Properties

BlockEndSeconds	The absolute time of the last sample expressed as seconds since the start command.
BlockLength	The size of the recorded data.
BlockStartSeconds	The absolute time of the first sample expressed as seconds since the start command.
EcrBoardAddress	Used in event recorder mode: The board that recorded the event.
EcrInputNumber	Used in event recorder mode: The number of the input (0-based) that recorded the event.
ExternalClockDivisor	Divisor for the external clock, valid when TimeBaseSource == 1.
IsEcrSingleChannel	If this field is true, data is available only for a single channel which is indicated by the fields 'BoardAddress' and 'InputNumber'. If there are associated channels for this channel, data is available for them too. If this field is false, data is available on all input channels in the same cluster.
IsGrowing	Indicates if a block is still growing.
SampleRateHertz	Sample rate in Hertz, valid when TimeBaseSource == 0.
StartTime	Date and time of the start command.
StopTriggerSample	The index of the stop trigger sample, for those modes that have a stop trigger.
TimeBaseSource	Time base source, 0: internal, 1: external.
TMax	Get the time of the end of this block in seconds sinde recording start.
TMin	Get the time of the first sample of this block in seconds since recording start.
TriggerSample	The index of the trigger sample. (The trigger sample is the sample that is associated with time zero.)
TriggerTimeSeconds	The absolute time of the trigger sample expressed as seconds since the start command. This field does not have a valid value if the block is not completed

	(except for the continuous mode, where the trigger is considered to be at sample zero).

Methods

CompareTo	Compares this object with the specified object.
Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
ToString	Returns a string that represents the current object. (Inherited from **Object**)

See Also

Reference

Elsys.TransPC.Devices Namespace

TMetaData.BlockEndSeconds Property

The absolute time of the last sample expressed as seconds since the start command.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double BlockEndSeconds { get; }
```

Property Value

Double

See Also

Reference

TMetaData Class
Elsys.TransPC.Devices Namespace

TMetaData.BlockLength Property

The size of the recorded data.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public long BlockLength { get; }
```

Property Value

Int64

Remarks

This field continuously grows in Continuous mode while the measurement is in progress. Use this field to determine how much of the data can already be read out.

See Also

Reference

TMetaData Class
Elsys.TransPC.Devices Namespace

TMetaData.BlockStartSeconds Property

The absolute time of the first sample expressed as seconds since the start command.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double BlockStartSeconds { get; }
```

Property Value

Double

See Also

Reference

TMetaData Class

Elsys.TransPC.Devices Namespace

TMetaData.EcrBoardAddress Property

Used in event recorder mode: The board that recorded the event.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int EcrBoardAddress { get; }
```

Property Value

Int32

See Also

Reference

TMetaData Class

Elsys.TransPC.Devices Namespace

TMetaData.EcrInputNumber Property

Used in event recorder mode: The number of the input (0-based) that recorded the event.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int EcrInputNumber { get; }
```

Property Value

Int32

See Also

Reference

TMetaData Class

Elsys.TransPC.Devices Namespace

TMetaData.ExternalClockDivisor Property

Divisor for the external clock, valid when TimeBaseSource == 1.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int ExternalClockDivisor { get; }
```

Property Value

Int32

See Also

Reference

TMetaData Class

Elsys.TransPC.Devices Namespace

TMetaData.IsEcrSingleChannel Property

If this field is true, data is available only for a single channel which is indicated by the fields 'BoardAddress' and 'InputNumber'. If there are associated channels for this channel, data is available for them too. If this field is false, data is available on all input channels in the same cluster.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool IsEcrSingleChannel { get; }
```

Property Value

Boolean

See Also

Reference

TMetaData Class
Elsys.TransPC.Devices Namespace

TMetaData.IsGrowing Property

Indicates if a block is still growing.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool IsGrowing { get; }
```

Property Value

Boolean

Remarks

If this field is true, then the block contains valid data and can be read out, but the recording is not completed yet. The block size is still growing and additional data will be appended to the block at a later time. (Block 0 in Continuous and Dual mode). If this field is false, the block is finished and its block size will not change any more.

See Also

Reference

TMetaData Class
Elsys.TransPC.Devices Namespace

TMetaData.SampleRateHertz Property

Sample rate in Hertz, valid when TimeBaseSource == 0.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double SampleRateHertz { get; }
```

Property Value

Double

See Also

Reference

TMetaData Class

Elsys.TransPC.Devices Namespace

TMetaData.StartTime Property

Date and time of the start command.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public DateTime StartTime { get; }
```

Property Value

DateTime

See Also

Reference

TMetaData Class

Elsys.TransPC.Devices Namespace

TMetaData.StopTriggerSample Property

The index of the stop trigger sample, for those modes that have a stop trigger.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public long StopTriggerSample { get; }
```

Property Value

Int64

See Also

Reference

TMetaData Class

Elsys.TransPC.Devices Namespace

TMetaData.TimeBaseSource Property

Time base source, 0: internal, 1: external.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int TimeBaseSource { get; }
```

Property Value

Int32

See Also

Reference

TMetaData Class

Elsys.TransPC.Devices Namespace

TMetaData.TMax Property

Get the time of the end of this block in seconds sinde recording start.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double TMax { get; }
```

Property Value

Double

See Also

Reference

TMetaData Class

Elsys.TransPC.Devices Namespace

TMetaData.TMin Property

Get the time of the first sample of this block in seconds since recording start.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double TMin { get; }
```

Property Value

Double

See Also

Reference

TMetaData Class

Elsys.TransPC.Devices Namespace

TMetaData.TriggerSample Property

The index of the trigger sample. (The trigger sample is the sample that is associated with time zero.)

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public long TriggerSample { get; }
```

Property Value

Int64

See Also

Reference

TMetaData Class

Elsys.TransPC.Devices Namespace

TMetaData.TriggerTimeSeconds Property

The absolute time of the trigger sample expressed as seconds since the start command. This field does not have a valid value if the block is not completed (except for the continuous mode, where the trigger is considered to be at sample zero).

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double TriggerTimeSeconds { get; }
```

Property Value

Double

See Also

Reference

TMetaData Class
Elsys.TransPC.Devices Namespace

TMetaData.CompareTo Method

Compares this object with the specified object.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int CompareTo(
       Object obj
)
```

Parameters

obj **Object**

Object to compare this object with.

Return Value

Int32

-1 if this object triggered earlier than the specified object. 0 if both objects triggered at the same time. 1 if this object triggered after the specified object.

Implements

IComparable.CompareTo(Object)

See Also

Reference

TMetaData Class

Elsys.TransPC.Devices Namespace

TransPCException Class

This is the exception class that all TpcAccess functions throw when there is a problem.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class TransPCException : Exception
```

Inheritance **Object** → **Exception** → `TransPCException`

Constructors

TransPCException	Creates a new TransPCException with the specified ErrorCode.

Properties

Data	Gets a collection of key/value pairs that provide additional user-defined information about the exception. (Inherited from **Exception**)
ErrorCode	The internal TransPC error code.
HelpLink	Gets or sets a link to the help file associated with this exception. (Inherited from **Exception**)
InnerException	Gets the **Exception** instance that caused the current exception. (Inherited from **Exception**)
Message	Gets a message that describes the current exception. (Inherited from **Exception**)
Source	Gets or sets the name of the application or the object that causes the error. (Inherited from **Exception**)
StackTrace	Gets a string representation of the immediate frames on the call stack. (Inherited from **Exception**)
TargetSite	Gets the method that throws the current exception. (Inherited from **Exception**)

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetBaseException	When overridden in a derived class, returns the **Exception** that is the root cause of one or more subsequent exceptions. (Inherited from **Exception**)

GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetObjectData	When overridden in a derived class, sets the **SerializationInfo** with information about the exception. (Inherited from **Exception**)
GetType	Gets the runtime type of the current instance. (Inherited from **Exception**)
ToString	Creates and returns a string representation of the current exception. (Inherited from **Exception**)

See Also

Reference

Elsys.TransPC.Devices Namespace

TransPCException Constructor

Creates a new TransPCException with the specified ErrorCode.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public TransPCException(
       ErrorCode errorCode
)
```

Parameters

errorCode ErrorCode

The ErrorCode for this Exception.

See Also

Reference

TransPCException Class

Elsys.TransPC.Devices Namespace

TransPCException.ErrorCode Property

The internal TransPC error code.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public ErrorCode ErrorCode { get; }
```

Property Value

ErrorCode

See Also

Reference

TransPCException Class

Elsys.TransPC.Devices Namespace

TransPCSystem Class

Represents a TransPC system.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class TransPCSystem : IDisposable
```

Inheritance	**Object** → `TransPCSystem`
Implements	**IDisposable**

Constructors

TransPCSystem	Initializes a new instance of the `TransPCSystem` class that represents the specified TransPC system.

Properties

ClusterIsUpdated	True when all cluster related data is up to date.
Devices	Gets a list of all devices that make up this TransPC system.
HasEachClusterANewBlock	True, when all clusters of the system have a new data block. Can be set by the user.
ReceiveTimeout	Set the timeout for recieving data through TpcAccess.
SendTimeout	Set the timeout for sending data through TpcAccess.
Status	Get the current system status information.

Methods

AbortMeasurement	Abort the measurement if it is running.
BeginSet	Start a compound set operation for parameters and attributes.
CancelSet	Cancel a compound set operation that was started with BeginSet(). None of the deferred changes to the parameters will be carried out.
Connect()	Open the connection to all the devices that belong to the system.
Connect(TimeSpan)	Open the connection to all the devices that belong to the system.
Disconnect	Disconnects the system from its devices.
Dispose	Closes all connections to the devices and releases the assiciated resources.
EndSet	End a compound set operation. All deferred changes made to the recording parameters are sent off to the devices.

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
ErrorToString	Convert a TransPC error code into a readable string.
ExecuteSystemCommand	Execute a system command.
ExtStart	Start measurement from external Trigger.
ExtStop	Abort measurement with external Trigger.
GetAllInputs	Gets a list of all inputs of all devices of the TransPC system.
GetApiVersion	Get the API version number of the native TpcAccess Interface. The current version is 1.2.
GetBoardsWithClusterNr	Get a list of all boards that have the give cluster number.
GetClusterInfo	Get information about the capabilities supported by all boards of the cluster.
GetClusterNrsInUse	Gets a list of all cluster numbers that are in use by the boards of the system.
GetCurrentTimeBaseMode	Get the current TimeBaseMode of the whole TransPCSystem
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetRecordingStatusOfCluster	Gets the recording status of the cluster with the given number.
GetTimeBaseSettingsOfCluster	Get the time base settings object for the cluster with the given number.
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
MakeMeasurement	Start a measurement and wait until it is completed.
ResetConfiguration	Reset the complete configuration of all connected devices. This will clear all attributes and set all parameters to their default values.
SoftwareTrigger	Provoke a trigger from software.
StartGPSSync	Start measurement with a GPS synced device compound.
StartMeasurement	Start a new measurement and return immediately.
ToString	Returns a string that represents the current object. (Inherited from **Object**)
TriggerArm	Enable triggers.
TriggerDisarm	Disable triggers.

See Also

Reference

Elsys.TransPC.Devices Namespace

TransPCSystem Constructor

Initializes a new instance of the TransPCSystem class that represents the specified TransPC system.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public TransPCSystem(
       string[] urls
)
```

Parameters

urls **String**[]
The URLs (including the port) that will be used to connect to the devices. (e.g. "192.168.99.22:10010" or "http://localhost:10010")

Remarks

A TransPC system is a group of TransPC devices that perform a measurement togehter. Each device has a unique URL that is used to connect to it over the network.

The TpcAccess dll stores a list of urls to devices that belong to the system. With call to Connect() it will try to establish connection to each of these devices. The connections will be monitored and reestablished if they get lost.

Prior to working with the system, the list of devices that make up the system (and that are linked together via the Star Hub) must be given to TpcAccess. To do this, call this constructor and pass it a collection of the urls of all devices that belong to the system.

If you are identifying channels with the triple (deviceIndex, boardAddress, inputNumber), the order in which the URLs are given is important, because the deviceIndices are given in that order. The first device in the *urls* collection will get index 0, the next index 1, and so on.

To switch systems at runtime dispose this instance and create a new one.

If the same URL is added twice it is stored only once in the list. To see the resulting list of devices, examime the Devices collection after the connection was initiated with Connect().

See Also

Reference

TransPCSystem Class
Elsys.TransPC.Devices Namespace

TransPCSystem.ClusterIsUpdated Property

True when all cluster related data is up to date.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool ClusterIsUpdated { get; }
```

Property Value

Boolean

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.Devices Property

Gets a list of all devices that make up this TransPC system.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public Device[] Devices { get; }
```

Property Value

Device[]

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.HasEachClusterANewBlock Property

True, when all clusters of the system have a new data block. Can be set by the user.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool HasEachClusterANewBlock { get; set; }
```

Property Value

Boolean

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.ReceiveTimeout Property

Set the timeout for recieving data through TpcAccess.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int ReceiveTimeout { get; set; }
```

Property Value

Int32

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.SendTimeout Property

Set the timeout for sending data through TpcAccess.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int SendTimeout { get; set; }
```

Property Value

Int32

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.Status Property

Get the current system status information.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public SystemStatus Status { get; }
```

Property Value

SystemStatus

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.AbortMeasurement Method

Abort the measurement if it is running.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void AbortMeasurement()
```

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.BeginSet Method

Start a compound set operation for parameters and attributes.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void BeginSet()
```

Remarks

Setting many parameters or attributes can cause a lot of network traffic. To reduce this and increase throughput you can use a "compound set operation" where a group of set commands are sent to the devices in a single block. To do this surround a group of setting changes with BeginSet() and EndSet().

After calling BeginSet(), all changes of the settings will no longer be carried out immediately. They will be deferred and stored internally in a buffer until EndSet() or CancelSet() is called.

BeginSet() may be called several times, but an equal number of EndSet() calls must be given in order to send off the values.

See Also

Reference
TransPCSystem Class
Elsys.TransPC.Devices Namespace

TransPCSystem.CancelSet Method

Cancel a compound set operation that was started with BeginSet(). None of the deferred changes to the parameters will be carried out.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void CancelSet()
```

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.Connect Method

Open the connection to all the devices that belong to the system.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public ErrorCode Connect()
```

Return Value

ErrorCode
If all devices could be connected and returned no error, the return value is NoError. If at least one of the devices did not respond within 5 seconds the result is NoConnection. If all devices responded, but at least one device returned an error, the result is this error code.

Remarks

When this method is called, a connection to all devices that belong to the system is made. From then on the connections will be monitored and reestablished in case they get lost.

It may take a short while until the connection to the devices is established.

There is no problem if a device cannot be connected immediately. The device's status is set to disconnected and the return value from this method indicates the problem. Further attempts to connect to the device will be made periodically. The status can be queried with the Status property of each device, the overall state is shown in the AreAllDevicesOk property of the system status.

To close the connections to the devices, call Dispose() on this instance. To switch systems at runtime dispose this instance and create a new one.

See Also

Reference

TransPCSystem Class
Elsys.TransPC.Devices Namespace

TransPCSystem.Connect(TimeSpan) Method

Open the connection to all the devices that belong to the system.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public ErrorCode Connect(
       TimeSpan connectionTimeout
)
```

Parameters

connectionTimeout **TimeSpan**

Timeout for trying to connect to the devices.

Return Value

ErrorCode

If all devices could be connected and returned no error the return value is NoError. If at least one of the devices did not respond within *connectionTimeout* the result is NoConnection. If all devices responded, but at least one device returned an error, the result is this error code.

Remarks

When this method is called, a connection to all devices that belong to the system is made. From then on the connections will be monitored and reestablished in case they get lost.

It may take a short while until the connection to the devices is established. With the *connectionTimeout* parameter you can specify how long to wait at most for the connection.

There is no problem if a device cannot be connected immediately. The device's status is set to disconnected and the return value from this method indicates the problem. Further attempts to connect to the device will be made periodically. The status can be queried with the Status property of each device, the overall state is shown in the AreAllDevicesOk property of the system status.

To close the connections to the devices, call Dispose() on this instance. To switch systems at runtime dispose this instance and create a new one.

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.Disconnect Method

Disconnects the system from its devices.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void Disconnect()
```

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.Dispose Method

Closes all connections to the devices and releases the assiciated resources.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void Dispose()
```

Implements

IDisposable.Dispose()

See Also

Reference

TransPCSystem Class
Elsys.TransPC.Devices Namespace

TransPCSystem.EndSet Method

End a compound set operation. All deferred changes made to the recording parameters are sent off to the devices.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void EndSet()
```

Exceptions

TransPCException	Thrown when there is a problem with one of the involved devices.

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.ErrorToString Method

Convert a TransPC error code into a readable string.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public static string ErrorToString(
       ErrorCode errorCode
)
```

Parameters

errorCode ErrorCode

The error code as found in some structures.

Return Value

String

The error string.

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.ExecuteSystemCommand Method

Execute a system command.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void ExecuteSystemCommand(
       SystemCommand command
)
```

Parameters

command SystemCommand

The command to be executed.

Remarks

A system command can only be executed if all devices of the system are connected, initialized and are responding. If there is a problem with one or more devices the system command cannot be given.

Exceptions

TransPCException	Thrown when there is a problem with one of the devices or if the current system status does not allow the specified command.

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.ExtStart Method

Start measurement from external Trigger.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void ExtStart()
```

See Also

Reference

TransPCSystem Class
Elsys.TransPC.Devices Namespace

TransPCSystem.ExtStop Method

Abort measurement with external Trigger.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void ExtStop()
```

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.GetAllInputs Method

Gets a list of all inputs of all devices of the TransPC system.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public Input[] GetAllInputs()
```

Return Value

Input[]

List of all inputs.

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.GetApiVersion Method

Get the API version number of the native TpcAccess Interface. The current version is 1.2.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public static Version GetApiVersion()
```

Return Value

Version

The API version.

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.GetBoardsWithClusterNr Method

Get a list of all boards that have the give cluster number.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public Board[] GetBoardsWithClusterNr(
       int clusterNr
)
```

Parameters

clusterNr **Int32**

The cluster number

Return Value

Board[]

A list with all boards that have the given cluster number. The list is empty if no such board exists.

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.GetClusterInfo Method

Get information about the capabilities supported by all boards of the cluster.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public ClusterInfo GetClusterInfo(
       int clusterNr
)
```

Parameters

clusterNr **Int32**

Cluster number

Return Value

ClusterInfo

aClusterInfo with information about the capabilities supported by all boards of the cluster.

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.GetClusterNrsInUse Method

Gets a list of all cluster numbers that are in use by the boards of the system.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int[] GetClusterNrsInUse()
```

Return Value

Int32[]

A list with all different cluster numbers that were found on all boards.

Remarks

The list is sorted and does not contain duplicates.

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.GetCurrentTimeBaseMode Method

Get the current TimeBaseMode of the whole TransPCSystem

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public TimeBaseMode GetCurrentTimeBaseMode()
```

Return Value

TimeBaseMode

The TimeBaseMode

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.GetRecordingStatusOfCluster Method

Gets the recording status of the cluster with the given number.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public RecordingStatus GetRecordingStatusOfCluster(
       int clusterNr
)
```

Parameters

clusterNr **Int32**

The cluster number.

Return Value

RecordingStatus

The recording state of this cluster or a null reference (`Nothing` in Visual Basic) if no cluster with the given number exists.

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.GetTimeBaseSettingsOfCluster Method

Get the time base settings object for the cluster with the given number.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public TimeBaseSettings GetTimeBaseSettingsOfCluster(
       int clusterNr
)
```

Parameters

clusterNr **Int32**

The cluster number.

Return Value

TimeBaseSettings

The time base settings object for the cluster, or a null reference (`Nothing` in Visual Basic) if no cluster with the given number exists.

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.MakeMeasurement Method

Start a measurement and wait until it is completed.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool MakeMeasurement(
       int timeout
)
```

Parameters

timeout **Int32**

The maximum amount of time in milliseconds to wait for the measrement to complete.

Return Value

Boolean

`true`

(`True` in Visual Basic) if the measurement was completed successfully, `false` (`False` in Visual Basic) if the measurement did not complete within *timeout*.

Remarks

The measurement will be aborted if it does not complete within *timeout*.

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.ResetConfiguration Method

Reset the complete configuration of all connected devices. This will clear all attributes and set all parameters to their default values.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void ResetConfiguration()
```

Remarks

Note: This method does not clear the system definition.

Exceptions

TransPCException	Thrown when there is a problem with the device or the network communication.

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.SoftwareTrigger Method

Provoke a trigger from software.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void SoftwareTrigger()
```

See Also

Reference

TransPCSystem Class
Elsys.TransPC.Devices Namespace

TransPCSystem.StartGPSSync Method

Start measurement with a GPS synced device compound.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void StartGPSSync()
```

See Also

Reference

TransPCSystem Class
Elsys.TransPC.Devices Namespace

TransPCSystem.StartMeasurement Method

Start a new measurement and return immediately.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void StartMeasurement()
```

See Also

Reference

TransPCSystem Class
Elsys.TransPC.Devices Namespace

TransPCSystem.TriggerArm Method

Enable triggers.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void TriggerArm()
```

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TransPCSystem.TriggerDisarm Method

Disable triggers.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void TriggerDisarm()
```

See Also

Reference

TransPCSystem Class

Elsys.TransPC.Devices Namespace

TriggerSettings Class

Allows to query or set the trigger parameters for an input. See TriggerSettings.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
[SerializableAttribute]
public class TriggerSettings
```

Inheritance **Object** → `TriggerSettings`

Properties

ANDLink	Link Input-Triggers with eachother. `false` (`False` in Visual Basic): triggers independent of other channels, `true` (`True` in Visual Basic): triggers if all andLink group channels triggered.
ComparatorMode	Trigger comparator mode: Off, Positive, Negative, Both. See EasyTriggerComperatorMode.
Hysteresis	Trigger hysteresis in volts. For window trigger this value represents the second voltage level.
InputMultiplier	The input multiplier multiplies two channels and feeds the product into the comparator. Used for power trigger (P=U*I).
Level	Trigger level in volts.
MasterDisable	Option to disable the trigger of the channel without changing the other settings. `false` (`False` in Visual Basic): channel triggers according to the other settings, `true` (`True` in Visual Basic): channel does not trigger.
ResetOverload	Set to a new value to clear the overload flags. See ADCOverloadState.
ShowProduct	Show also the multiplied signal (only if trigger multiplier is used)
StopTriggerComparatorMode	Comparator mode for stop trigger: Off, PositiveSlope, NegativeSlope, BothSlopes, WindowOut, WindowIn. See ComparatorMode. 'Off' disables the stop trigger for this channel. In effect when the stop trigger option for Event recorder mode is used.
StopTriggerLevelA	First level for the stop trigger in percent of full input range. Valid values are from -100 to +100%. In effect when the stop trigger option for Event recorder mode is used and the trigger comparator mode is not 'Off'.
StopTriggerLevelB	Second level for the stop trigger in percent of full input range. Valid values are from -100 to +100%. In effect when the stop trigger option for Event recorder mode is used and the trigger comparator mode is not 'Off'.

TimerT1Samples	This value is used with pulse or delay trigger modi. It determines the post trigger time for the time window. Valid values from 1 to 65535.
TimerTSamples	This value is used with pulse or period trigger modi. It determines the timeout for the trigger timer in samples. Valid values from 1 to 65535.
TriggerMode	Trigger mode. See enum EasyTriggerMode.

Methods

Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)
GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
SetTrigger	Sets the channels trigger mode to the specified settings.
ToString	Returns a string that represents the current object. (Inherited from **Object**)

See Also

Reference

Elsys.TransPC.Devices Namespace

TriggerSettings.ANDLink Property

Link Input-Triggers with eachother. `false` (`False` in Visual Basic): triggers independent of other channels, `true` (`True` in Visual Basic): triggers if all andLink group channels triggered.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool ANDLink { get; set; }
```

Property Value

Boolean

See Also

Reference

TriggerSettings Class

Elsys.TransPC.Devices Namespace

TriggerSettings.ComparatorMode Property

Trigger comparator mode: Off, Positive, Negative, Both. See EasyTriggerComperatorMode.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public EasyTriggerComperatorMode ComparatorMode { get; set; }
```

Property Value

EasyTriggerComperatorMode

See Also

Reference

TriggerSettings Class

Elsys.TransPC.Devices Namespace

TriggerSettings.Hysteresis Property

Trigger hysteresis in volts. For window trigger this value represents the second voltage level.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double Hysteresis { get; set; }
```

Property Value

Double

See Also

Reference

TriggerSettings Class

Elsys.TransPC.Devices Namespace

TriggerSettings.InputMultiplier Property

The input multiplier multiplies two channels and feeds the product into the comparator. Used for power trigger (P=U*I).

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool InputMultiplier { get; set; }
```

Property Value

Boolean

See Also

Reference

TriggerSettings Class

Elsys.TransPC.Devices Namespace

TriggerSettings.Level Property

Trigger level in volts.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double Level { get; set; }
```

Property Value

Double

See Also

Reference

TriggerSettings Class

Elsys.TransPC.Devices Namespace

TriggerSettings.MasterDisable Property

Option to disable the trigger of the channel without changing the other settings. `false` (`False` in Visual Basic): channel triggers according to the other settings, `true` (`True` in Visual Basic): channel does not trigger.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool MasterDisable { get; set; }
```

Property Value

Boolean

See Also

Reference

TriggerSettings Class
Elsys.TransPC.Devices Namespace

TriggerSettings.ResetOverload Property

Set to a new value to clear the overload flags. See ADCOverloadState.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double ResetOverload { get; set; }
```

Property Value

Double

See Also

Reference

TriggerSettings Class

Elsys.TransPC.Devices Namespace

TriggerSettings.ShowProduct Property

Show also the multiplied signal (only if trigger multiplier is used)

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool ShowProduct { get; set; }
```

Property Value

Boolean

See Also

Reference

TriggerSettings Class

Elsys.TransPC.Devices Namespace

TriggerSettings.StopTriggerComparatorMode Property

Comparator mode for stop trigger: Off, PositiveSlope, NegativeSlope, BothSlopes, WindowOut, WindowIn. See ComparatorMode. 'Off' disables the stop trigger for this channel. In effect when the stop trigger option for Event recorder mode is used.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public ComparatorMode StopTriggerComparatorMode { get; set; }
```

Property Value
ComparatorMode

See Also

Reference
TriggerSettings Class
Elsys.TransPC.Devices Namespace

TriggerSettings.StopTriggerLevelA Property

First level for the stop trigger in percent of full input range. Valid values are from -100 to +100%. In effect when the stop trigger option for Event recorder mode is used and the trigger comparator mode is not 'Off'.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double StopTriggerLevelA { get; set; }
```

Property Value

Double

See Also

Reference

TriggerSettings Class
Elsys.TransPC.Devices Namespace

TriggerSettings.StopTriggerLevelB Property

Second level for the stop trigger in percent of full input range. Valid values are from -100 to +100%. In effect when the stop trigger option for Event recorder mode is used and the trigger comparator mode is not 'Off'.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double StopTriggerLevelB { get; set; }
```

Property Value

Double

See Also

Reference

TriggerSettings Class
Elsys.TransPC.Devices Namespace

TriggerSettings.TimerT1Samples Property

This value is used with pulse or delay trigger modi. It determines the post trigger time for the time window. Valid values from 1 to 65535.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int TimerT1Samples { get; set; }
```

Property Value

Int32

See Also

Reference

TriggerSettings Class

Elsys.TransPC.Devices Namespace

TriggerSettings.TimerTSamples Property

This value is used with pulse or period trigger modi. It determines the timeout for the trigger timer in samples. Valid values from 1 to 65535.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int TimerTSamples { get; set; }
```

Property Value

Int32

See Also

Reference

TriggerSettings Class

Elsys.TransPC.Devices Namespace

TriggerSettings.TriggerMode Property

Trigger mode. See enum EasyTriggerMode.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public EasyTriggerMode TriggerMode { get; set; }
```

Property Value

EasyTriggerMode

See Also

Reference

TriggerSettings Class

Elsys.TransPC.Devices Namespace

TriggerSettings.SetTrigger Method

Sets the channels trigger mode to the specified settings.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public void SetTrigger(
       EasyTriggerMode mode,
       EasyTriggerComperatorMode compMode,
       EasyTriggerFlags flags,
       double level,
       double hysteresis,
       int time,
       int time2
)
```

Parameters

mode EasyTriggerMode

Trigger Mode, all coming parameters depend on this trigger mode

compMode EasyTriggerComperatorMode

Comperator Mode

flags EasyTriggerFlags

Flags, used to enable AND mask or trigger multiplier

level **Double**

Trigger Level in Volt

hysteresis **Double**

Trigger Hysteresis in Volt

time **Int32**

Time used for time triggers in Samples

time2 **Int32**

Time2 used for time triggers in Samples

See Also

Reference

TriggerSettings Class

Elsys.TransPC.Devices Namespace

TriggerState Enumeration

Trigger state.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public enum TriggerState
```

Members

Disarmed	0	The system is disarmed due to pretrigger delay or a disarm command.
Armed	1	The system is ready to detect a trigger condition.
Triggered	2	A trigger has been detected, the block will be finished.

See Also

Reference

Elsys.TransPC.Devices Namespace

YMetaData Class

Represents y-Axis meta data.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public class YMetaData
```

Inheritance **Object** → YMetaData

Properties

AnalogMask	Mask to blind out marker bits from the binary raw data.
BinToPhysicalConstant	Offset for conversion binary ADC values to physical unit.
BinToPhysicalFactor	Conversion factor binary ADC values to physical unit. (physical unit = binary*factor + constant.)
BinToVoltConstant	Offset for conversion raw binary ADC values to volt.
BinToVoltFactor	Conversion factor to convert raw binary ADC values to volt. (volt = binary*factor + constant.)
BytesPerSample	Bytes per sample, 2 or 4. Used internally.
InputActive	True if the input is active and produces data.
MarkerMask	Mask to blind out analog bits from the binary raw data.
NumberOfMarkerBits	Number of marker bits. Markers are the rightmost bits in the sample word.
ResolutionInBits	Effective resolution of the signal in bits. (This can be higher than the ADC resolution if averaging is switched on.)
VoltToPhysicalConstant	Offset for conversion Volt to physical unit.
VoltToPhysicalFactor	Conversion factor Volt to physical unit. (physical unit = volt*factor + constant.)

Methods

ConvertRawToPhysicalUnit(Int32)	Converts raw data to physical user unit.
ConvertRawToPhysicalUnit(Int32[])	Converts raw data to physical user unit.
ConvertRawToVolt(Int32)	Converts raw data to Volt.
ConvertRawToVolt(Int32[])	Converts raw data to Volt.
Equals	Determines whether the specified object is equal to the current object. (Inherited from **Object**)

GetHashCode	Serves as the default hash function. (Inherited from **Object**)
GetType	Gets the **Type** of the current instance. (Inherited from **Object**)
ToString	Returns a string that represents the current object. (Inherited from **Object**)

See Also

Reference

Elsys.TransPC.Devices Namespace

YMetaData.AnalogMask Property

Mask to blind out marker bits from the binary raw data.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int AnalogMask { get; }
```

Property Value

Int32

See Also

Reference

YMetaData Class

Elsys.TransPC.Devices Namespace

YMetaData.BinToPhysicalConstant Property

Offset for conversion binary ADC values to physical unit.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double BinToPhysicalConstant { get; }
```

Property Value

Double

See Also

Reference

YMetaData Class

Elsys.TransPC.Devices Namespace

YMetaData.BinToPhysicalFactor Property

Conversion factor binary ADC values to physical unit. (physical unit = binary*factor + constant.)

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double BinToPhysicalFactor { get; }
```

Property Value

Double

See Also

Reference

YMetaData Class

Elsys.TransPC.Devices Namespace

YMetaData.BinToVoltConstant Property

Offset for conversion raw binary ADC values to volt.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double BinToVoltConstant { get; }
```

Property Value

Double

See Also

Reference

YMetaData Class

Elsys.TransPC.Devices Namespace

YMetaData.BinToVoltFactor Property

Conversion factor to convert raw binary ADC values to volt. (volt = binary*factor + constant.)

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double BinToVoltFactor { get; }
```

Property Value

Double

See Also

Reference

YMetaData Class

Elsys.TransPC.Devices Namespace

YMetaData.BytesPerSample Property

Bytes per sample, 2 or 4. Used internally.

Definition

Namespace: Elsys.TransPC.Devices
Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int BytesPerSample { get; }
```

Property Value

Int32

See Also

Reference

YMetaData Class
Elsys.TransPC.Devices Namespace

YMetaData.InputActive Property

True if the input is active and produces data.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public bool InputActive { get; }
```

Property Value

Boolean

See Also

Reference

YMetaData Class

Elsys.TransPC.Devices Namespace

YMetaData.MarkerMask Property

Mask to blind out analog bits from the binary raw data.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int MarkerMask { get; }
```

Property Value

Int32

See Also

Reference

YMetaData Class

Elsys.TransPC.Devices Namespace

YMetaData.NumberOfMarkerBits Property

Number of marker bits. Markers are the rightmost bits in the sample word.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int NumberOfMarkerBits { get; }
```

Property Value

Int32

See Also

Reference

YMetaData Class

Elsys.TransPC.Devices Namespace

YMetaData.ResolutionInBits Property

Effective resolution of the signal in bits. (This can be higher than the ADC resolution if averaging is switched on.)

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public int ResolutionInBits { get; }
```

Property Value

Int32

See Also

Reference

YMetaData Class

Elsys.TransPC.Devices Namespace

YMetaData.VoltToPhysicalConstant Property

Offset for conversion Volt to physical unit.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double VoltToPhysicalConstant { get; }
```

Property Value

Double

See Also

Reference

YMetaData Class

Elsys.TransPC.Devices Namespace

YMetaData.VoltToPhysicalFactor Property

Conversion factor Volt to physical unit. (physical unit = volt*factor + constant.)

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double VoltToPhysicalFactor { get; }
```

Property Value

Double

See Also

Reference

YMetaData Class

Elsys.TransPC.Devices Namespace

YMetaData.ConvertRawToPhysicalUnit(Int32) Method

Converts raw data to physical user unit.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double ConvertRawToPhysicalUnit(
       int rawData
)
```

Parameters

rawData **Int32**

The raw data value.

Return Value

Double

The value scaled to physical user unit.

See Also

Reference

YMetaData Class

Elsys.TransPC.Devices Namespace

YMetaData.ConvertRawToPhysicalUnit(Int32[]) Method

Converts raw data to physical user unit.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double[] ConvertRawToPhysicalUnit(
       int[] rawData
)
```

Parameters

rawData **Int32**[]

The raw data values.

Return Value

Double[]

The values scaled to physical user unit.

See Also

Reference

YMetaData Class

Elsys.TransPC.Devices Namespace

YMetaData.ConvertRawToVolt(Int32) Method

Converts raw data to Volt.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double ConvertRawToVolt(
       int rawData
)
```

Parameters

rawData **Int32**

The raw data value.

Return Value

Double

The value scaled to Volt.

See Also

Reference

YMetaData Class

Elsys.TransPC.Devices Namespace

YMetaData.ConvertRawToVolt(Int32[]) Method

Converts raw data to Volt.

Definition

Namespace: Elsys.TransPC.Devices

Assembly: TransPCSystemLV (in TransPCSystemLV.dll) Version: 1.1.0.0 (1.1.0.0)

C#

```
public double[] ConvertRawToVolt(
       int[] rawData
)
```

Parameters

rawData **Int32**[]

The raw data values.

Return Value

Double[]

The values scaled to Volt.

See Also

Reference

YMetaData Class

Elsys.TransPC.Devices Namespace