PlcAddress Class

Namespace: IPS7Lnk.Advanced
Assemblies: IPS7LnkNet.Advanced.dll

Represents an address which refers to a specific data area stored within a programmable logic controller (PLC).

C#

```
[Serializable]
public class PlcAddress : PlcIdentity, IComparable, ISerializable, IEquatable<PlcAddress>,
IComparable<PlcAddress>
```

Inheritance Object › PlcIdentity › PlcAddress

Derived

- PlcBitAddress
- PlcByteAddress
- PlcDWordAddress
- PlcWordAddress

Attributes SerializableAttribute

Implements IComparable, Serialization.ISerializable, IEquatable<PlcAddress>, IComparable<PlcAddress>

Constructors

Name	Description
PlcAddress(PlcOperand, PlcRawType, Int32)	Initializes a new instance of the PlcAddress class using the specified `operand`, `rawType` and `byteNumber`.
PlcAddress(PlcOperand, PlcRawType, Int32, Int32)	Initializes a new instance of the PlcAddress class using the specified `operand`, `rawType`, `byteNumber` and `bitNumber`.
PlcAddress(PlcOperandType, Int32, PlcRawType, Int32)	Initializes a new instance of the PlcAddress class using the specified `operandType`, `operandNumber`, `rawType` and `byteNumber`.
PlcAddress(PlcOperandType, Int32, PlcRawType, Int32, Int32)	Initializes a new instance of the PlcAddress class using the specified `operandType`, `operandNumber`, `rawType`, `byteNumber` and `bitNumber`.
PlcAddress(PlcOperandType, PlcRawType, Int32)	Initializes a new instance of the PlcAddress class using the specified `operandType`, `rawType`, and `byteNumber`.
PlcAddress(PlcOperandType, PlcRawType, Int32, Int32)	Initializes a new instance of the PlcAddress class using the specified `operandType`, `rawType`, `byteNumber` and `bitNumber`.

Name	Description
PlcAddress(Serialization.SerializationInfo, Serialization.StreamingContext)	Initializes a new instance of the PlcAddress class with serialized data.

Fields

Name	Description
MaxBitNumber	Specifies the maximum value that can be assigned to the BitNumber property.
MaxByteNumber	Specifies the maximum value that can be assigned to the ByteNumber property.
MaxOperandNumber	Specifies the maximum value that can be assigned to the OperandNumber property.
MinBitNumber	Specifies the minimum value that can be assigned to the BitNumber property.
MinByteNumber	Specifies the minimum value that can be assigned to the ByteNumber property.
MinOperandNumber	Specifies the minimum value that can be assigned to the OperandNumber property.

Properties

Name	Description
BitNumber	Gets the bit number part of the address, which defines to which bit the address refers.
ByteNumber	Gets the byte number part of the address, which defines to which byte the address refers.
Operand	Gets the operand part of the address, which defines to which memory block the address refers.
OperandNumber	Gets the operand number part of the address, which defines to which operand the address refers.
OperandType	Gets the type of operand to which the address refers.
OriginalString	Gets the original string from that the address was created.
RawType	Gets the raw type of to which the address refers.
Standard	Gets a value indicating which PlcOperandStandard was used to create the address.

Methods

Name	Description
CompareTo(Object)	Compares the current PlcAddress with the `other`.
CompareTo(Object)	Compares the current PlcIdentity with the `other`. (Inherited from PlcIdentity)
CompareTo(PlcAddress)	Compares the current PlcAddress with another PlcAddress.
Distinct(IEnumerable)	Returns distinct addresses from the sequence.
Equals(Object)	Determines whether the specified `other` is equal to this PlcAddress.
Equals(Object)	Determines whether the specified `other` is equal to this PlcIdentity. (Inherited from PlcIdentity)
Equals(PlcAddress)	Determines whether the specified `other` is equal to this PlcAddress.
Exclusive	Retrieves a new PlcAddress which points to the next address within the same RawType specific address sequence.

Name	Description
Exclusive(PlcRawType)	Retrieves a new PlcAddress which points to the next address within the same RawType specific address sequence regarding the `rawType` specified.
GetHashCode	Retrieves a hash code for this PlcAddress.
GetHashCode	Retrieves a hash code for this PlcIdentity. (Inherited from PlcIdentity)
GetObjectData(Serialization.SerializationInfo, Serialization.StreamingContext)	Sets the Serialization.SerializationInfo with information about the exception.
GetObjectData(Serialization.SerializationInfo, Serialization.StreamingContext)	Sets the Serialization.SerializationInfo with information about the exception. (Inherited from PlcIdentity)
Group(IEnumerable)	Groups the addresses of the sequence according to their Operand.
Max(IEnumerable)	Returns the maximum address in a sequence of PlcAddress instances.
Max(PlcAddress)	Returns the maximum address in a sequence of PlcAddress instances.
Min(IEnumerable)	Returns the minimum address in a sequence of PlcAddress instances.
Min(PlcAddress)	Returns the minimum address in a sequence of PlcAddress instances.
Offset(Int32)	Creates and returns an adjusted copy of the PlcAddress class. The copy is adjusted by the specified amount. The original PlcAddress class remains unmodified.
Offset(Int32, Int32)	Creates and returns an adjusted copy of the PlcAddress class. The copy is adjusted by the specified amount. The original PlcAddress class remains unmodified.
Offset(Int32, Int32, Int32)	Creates and returns an adjusted copy of the PlcAddress class. The copy is adjusted by the specified amount. The original PlcAddress class remains unmodified.
Parse(String)	Converts an address string to a PlcAddress instance.
ToString	Converts the address to its string representation.
ToString	Converts the name to its string representation. (Inherited from PlcIdentity)
ToString(PlcOperandStandard)	Converts the address to its string representation using the specified `standard`.
ToString(PlcOperandStandard, PlcAddressFormat)	Converts the address to its string representation using the specified `standard` and `format`.
TryParse(String, PlcAddress@)	Determines whether a string is a valid address.

Operators

Name	Description
op_Equality(PlcAddress, PlcAddress)	Returns a value indicating whether two instance of PlcAddress are equal.
op_Equality(PlcIdentity, PlcIdentity)	Returns a value indicating whether two instance of PlcIdentity are equal. (Inherited from PlcIdentity)

Name	Description
op_GreaterThan(PlcAddress, PlcAddress)	Determines whether the first specified PlcAddress object is greater than the second specified PlcAddress object.
op_GreaterThan(PlcIdentity, PlcIdentity)	Determines whether the first specified PlcIdentity object is greater than the second specified PlcIdentity object. (Inherited from PlcIdentity)
op_GreaterThanOrEqual(PlcAddress, PlcAddress)	Determines whether the first specified PlcAddress object is greater than or equal to the second specified PlcAddress object.
op_GreaterThanOrEqual(PlcIdentity, PlcIdentity)	Determines whether the first specified PlcIdentity object is greater than or equal to the second specified PlcIdentity object. (Inherited from PlcIdentity)
op_Implicit(Advanced.PlcAddress)	Converts a string formatted as address to an PlcAddress object.
op_Implicit(Advanced.PlcIdentity)	Converts a string formatted as name to an PlcIdentity object. (Inherited from PlcIdentity)
op_Inequality(PlcAddress, PlcAddress)	Returns a value indicating whether two instances of PlcAddress are not equal.
op_Inequality(PlcIdentity, PlcIdentity)	Returns a value indicating whether two instances of PlcIdentity are not equal. (Inherited from PlcIdentity)
op_LessThan(PlcAddress, PlcAddress)	Determines whether the first specified PlcAddress object is less than the second specified PlcAddress object.
op_LessThan(PlcIdentity, PlcIdentity)	Determines whether the first specified PlcIdentity object is less than the second specified PlcIdentity object. (Inherited from PlcIdentity)
op_LessThanOrEqual(PlcAddress, PlcAddress)	Determines whether the first specified PlcAddress object is less than or equal to the second PlcAddress object.
op_LessThanOrEqual(PlcIdentity, PlcIdentity)	Determines whether the first specified PlcIdentity object is less than or equal to the second PlcIdentity object. (Inherited from PlcIdentity)

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