

Math Namespace

Mathematical library

	Class	Description
43	Extensions	Helper class with extension methods.

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

Extensions Class

Helper class with extension methods.

■ Inheritance Hierarchy System Object Math Extensions

Namespace: Math

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public static class Extensions

The Extensions type exposes the following members.

■ Methods

	Name	Description
= ♦ S	ToExpressionPart	Transforms Node type to Expression part

Top

▲ See Also

Reference

Math Namespace



Extensions Methods

The Extensions type exposes the following members.

Methods

	Name	Description	
=♦ S	ToExpressionPart	Transforms Node type to Expression part	

Top

▲ See Also

Reference

Extensions Class Math Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

Extensions ToExpressionPart Method

Transforms Node type to Expression part

Namespace: Math

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

type

Type: System Type

Node type

Return Value

Type: ExpressionPartTypes resulting expression part

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type Type. When you use instance method syntax to call this method, omit the first parameter. For more information, see Extension Methods (Visual Basic) or Extension Methods (C# Programming Guide).

Exceptions

Exception	Condition
NotSupportedException	Throws when given node cannot be translated to ExpressionPartType

■ See Also

Reference

Extensions Class Math Namespace



Math.ExpressionTreeBuilder Namespace

Builder of expression tree.

	Class	Description
^ \$	ExpressionTreeBuilderT	Builds expression tree using given tokenizer.

▲ Interfaces

	Interface	Description
p - 0	IExpressionTreeBuilder	Builds expression tree using given tokenizer.

▲ Enumerations

Enumeration	Description
ExpressionPartTypes	Parts of math expression

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

ExpressionPartTypes Enumeration

Parts of math expression

Namespace: Math.ExpressionTreeBuilder

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public enum ExpressionPartTypes

Members

Member name	Value	Description
Number	0	Number
LeftParentheses	1	(
RightParentheses	2)
UnaryFollowing	3	Unary function Operator follows operand eq. 10!
UnaryPreceding	4	Unary function Operator precedes operand eq10
Binary	5	Binary function eq. 5+5

▲ See Also

Reference

Math.ExpressionTreeBuilder Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

ExpressionTreeBuilder T Class

Builds expression tree using given tokenizer.

■ Inheritance Hierarchy System Object Math.ExpressionTreeBuilder ExpressionTreeBuilder T

Namespace: Math.ExpressionTreeBuilder

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public class ExpressionTreeBuilder<T> : IExpressionTreeBuilder
where T : new(), ITokenizer
```

Type Parameters

/

Tokenizer used to parse expression

The ExpressionTreeBuilder T type exposes the following members.

Constructors

	Name	Description
₫♠	ExpressionTreeBuilder T	Initializes new expression tree builder
≡©	ExpressionTreeBuilder T (T)	Initializes new expression tree builder by using given tokenizer.

Top

■ Methods

	Name	Description
≡	Equals	(Inherited from Object.)
ē	Finalize	(Inherited from Object.)
=0	GetHashCode	(Inherited from Object.)
=0	GetType	(Inherited from Object.)

Ģ [©]	MemberwiseClone	(Inherited from Object.)
≡	ParseExpression	Creates node tree from given expression
≡	ToString	(Inherited from Object.)

Top

₄ Fields

	Name	Description
9 ₩	Tokenizer	Tokenizer used to parse given expressions.

Top

▲ See Also

Reference

Math.ExpressionTreeBuilder Namespace



ExpressionTreeBuilder T Constructor

■ Overload List

	Name	Description
≘	ExpressionTreeBuilderT	Initializes new expression tree builder
≡	ExpressionTreeBuilderT(T)	Initializes new expression tree builder by using given tokenizer.

Top

▲ See Also

Reference

ExpressionTreeBuilder Class
Math.ExpressionTreeBuilder Namespace



ExpressionTreeBuilder T Constructor

Initializes new expression tree builder

Namespace: Math.ExpressionTreeBuilder

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#
public ExpressionTreeBuilder()
```

▲ See Also

Reference

ExpressionTreeBuilderT Class ExpressionTreeBuilderT Overload Math.ExpressionTreeBuilder Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

ExpressionTreeBuilder T Constructor (T)

Initializes new expression tree builder by using given tokenizer.

Namespace: Math.ExpressionTreeBuilder

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

tokenizer

Type: T

Tokenizer used to parse math expressions.

▲ See Also

Reference

ExpressionTreeBuilder T Class
ExpressionTreeBuilder T Overload
Math.ExpressionTreeBuilder Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

ExpressionTreeBuilder T Methods

The ExpressionTreeBuilder T generic type exposes the following members.

■ Methods

	Name	Description
≡	Equals	(Inherited from Object.)
₹	Finalize	(Inherited from Object.)
≡	GetHashCode	(Inherited from Object.)
≡	GetType	(Inherited from Object.)
₹	MemberwiseClone	(Inherited from Object.)
=	ParseExpression	Creates node tree from given expression
≡	ToString	(Inherited from Object.)

Top

▲ See Also

Reference

ExpressionTreeBuilder T Class Math.ExpressionTreeBuilder Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

ExpressionTreeBuilder *T* ParseExpression Method

Creates node tree from given expression

Namespace: Math.ExpressionTreeBuilder

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public virtual INode ParseExpression(
    string expression
)
```

Parameters

expression

Type: System String

Math expression to be parsed.

Return Value

Type: INode

Tree composed from nodes.

Implements

IExpressionTreeBuilder ParseExpression(String)

■ See Also

Reference

ExpressionTreeBuilder T Class Math.ExpressionTreeBuilder Namespace



ExpressionTreeBuilder T Fields

The ExpressionTreeBuilderT generic type exposes the following members.

	Name	Description
9 ₽	Tokenizer	Tokenizer used to parse given expressions.

Top

▲ See Also

Reference

ExpressionTreeBuilderT Class Math.ExpressionTreeBuilder Namespace



ExpressionTreeBuilderTTokenizer Field

Tokenizer used to parse given expressions.

Namespace: Math.ExpressionTreeBuilder

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

protected readonly T Tokenizer
```

Field Value

Type: T

▲ See Also

Reference

ExpressionTreeBuilder Class
Math.ExpressionTreeBuilder Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

IExpressionTreeBuilder Interface

Builds expression tree using given tokenizer. Namespace: Math.ExpressionTreeBuilder

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public interface IExpressionTreeBuilder

The IExpressionTreeBuilder type exposes the following members.

■ Methods

	Name	Description
≡	ParseExpression	Creates node tree from given expression

Top

▲ See Also

Reference

Math.ExpressionTreeBuilder Namespace



IExpressionTreeBuilder Methods

The IExpressionTreeBuilder type exposes the following members.

Methods

	Name	Description
≡	ParseExpression	Creates node tree from given expression

Top

▲ See Also

Reference

IExpressionTreeBuilder Interface Math.ExpressionTreeBuilder Namespace

Documentation for IVS project 2 - calculator					
	Send comments on this topic to email@tichymichal.net				

IExpressionTreeBuilder ParseExpression Method

Creates node tree from given expression

Namespace: Math.ExpressionTreeBuilder

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

INode ParseExpression(
    string expression
)
```

Parameters

expression

Type: System String

Math expression to be parsed.

Return Value

Type: INode

Tree composed from nodes.

▲ See Also

Reference

IExpressionTreeBuilder Interface Math.ExpressionTreeBuilder Namespace



Math.Nodes Namespace

Implementations of individual nodes.

▲ Interfaces

	Interface	Description
o-O	INode	Base node interface

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

INode Interface

Base node interface

Namespace: Math.Nodes

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public interface INode

The INode type exposes the following members.

▲ Properties

Name	Description
Parent	Parent node

Top

■ Methods

	Name	Description
≡	Evaluate	Calculates value of node.

Top

■ See Also

Reference

Math.Nodes Namespace



INode Properties

The INode type exposes the following members.

▲ Properties

Name	Description
Parent	Parent node

Top

▲ See Also

Reference INode Interface Math.Nodes Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

INode Parent Property

Parent node

Namespace: Math.Nodes

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

Syntax

```
C# VB C++ F#

INode Parent { get; set; }
```

Property Value

Type: INode

▲ See Also

Reference

INode Interface

Math.Nodes Namespace



INode Methods

The INode type exposes the following members.

Methods

	Name	Description
=0	Evaluate	Calculates value of node.

Top

▲ See Also

Reference INode Interface Math.Nodes Namespace



INodeEvaluate Method

Calculates value of node.

Namespace: Math.Nodes

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

decimal Evaluate()
```

Return Value Type: Decimal Value of node

▲ See Also

Reference

INode Interface Math.Nodes Namespace



Math.Nodes.Functions Namespace

Implementation of function nodes.

▲ Interfaces

	Interface	Description
~ 0	IFunctionNode	Math function node

▲ Enumerations

Enumeration	Description
OperationPriority	defines order of operations.

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

IFunctionNode Interface

Math function node

Namespace: Math.Nodes.Functions

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public interface IFunctionNode : INode

The IFunctionNode type exposes the following members.

▲ Properties

Name	Description
Parent	Parent node (Inherited from INode.)

Top

■ Methods

	Name	Description
∃©	Evaluate	Calculates value of node. (Inherited from INode.)

Top

▲ See Also

Reference

Math.Nodes.Functions Namespace



IFunctionNode Properties

The IFunctionNode type exposes the following members.

→ Properties

	Name	Description
E	Parent	Parent node (Inherited from INode.)

Top

▲ See Also

Reference

IFunctionNode Interface Math.Nodes.Functions Namespace



IFunctionNode Methods

The IFunctionNode type exposes the following members.

Methods

	Name	Description
Ξ₩	Evaluate	Calculates value of node. (Inherited from INode.)

Top

▲ See Also

Reference

IFunctionNode Interface Math.Nodes.Functions Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

OperationPriority Enumeration

defines order of operations.

Namespace: Math.Nodes.Functions

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C#	VB	C++	F#	Copy _
pub	lic	enum	OperationPriority	

Members

Member name	Value	Description
LowPriorityOperation	0	subtractions, summations,
HighPriorityOperation	1	multiplications, divisions,
FunctionCalls	2	sqrt, factorial

▲ See Also

Reference

Math.Nodes.Functions Namespace



Math.Nodes.Functions.Binary Namespace

Implementation of binary nodes.

	Class	Description
43	DivisionNode	Node used to calculate division.
43	LogNode	Node used to calculate logarithm.
43	MultiplyNode	Node used to calculate multiplication.
43	PowNode	Node used to calculate power of
43	RandomNumberNode	Generates random decimal number
43	RootNode	Node used to calculate root
43	SubstractionNode	Node used to calculate substraction.
43	SumNode	Node used to calculate sum.

▲ Interfaces

IBinaryOperationNode Function node that has two children.		Interface	Description
	o~O	IBinaryOperationNode	Function node that has two children.

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

DivisionNode Class

Node used to calculate division.

■ Inheritance Hierarchy System Object Math.Nodes.Functions.Binary DivisionNode

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

The **DivisionNode** type exposes the following members.

Constructors

	Name	Description
≡	DivisionNode	Initializes a new instance of the DivisionNode class

Top

▲ Properties

Name	Description
LeftNode	Left child node
Parent	Parent node
RightNode	Right child node

Top

▲ Methods

	Name	Description
≡	Equals	(Inherited from Object.)
≡	Evaluate	Calculates value of node.
ē	Finalize	(Inherited from Object.)

=	GetHashCode	(Inherited from Object.)
= (GetType	(Inherited from Object.)
·	MemberwiseClone	(Inherited from Object.)
=	ToString	(Inherited from Object.)

Тор

▲ See Also

Reference



DivisionNode Constructor

Initializes a new instance of the DivisionNode class

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public DivisionNode()
```

▲ See Also

Reference

DivisionNode Class

Math.Nodes.Functions.Binary Namespace



DivisionNode Properties

The DivisionNode type exposes the following members.

→ Properties

Name	Description
LeftNode	Left child node
Parent	Parent node
RightNode	Right child node

Top

▲ See Also

Reference

DivisionNode Class Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator					
Send comments on this topic to email@tichymichal.net					

DivisionNode LeftNode Property

Left child node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode LeftNode { get; set; }
```

Property Value

Type: INode

Implements

IBinaryOperationNode LeftNode

▲ See Also

Reference

DivisionNode Class

Documentation for IVS project 2 - calculator					
Send comments on this topic to email@tichymichal.net					

DivisionNode Parent Property

Parent node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

▲ See Also

Reference

DivisionNode Class

Documentation for IVS project 2 - calculator					
Send comments on this topic to email@tichymichal.net					

DivisionNode RightNode Property

Right child node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode RightNode { get; set; }
```

Property Value

Type: INode

Implements

IBinaryOperationNode RightNode

▲ See Also

Reference

DivisionNode Class



DivisionNode Methods

The DivisionNode type exposes the following members.

Methods

	Name	Description
≡	Equals	(Inherited from Object.)
≅	Evaluate	Calculates value of node.
₹	Finalize	(Inherited from Object.)
≡	GetHashCode	(Inherited from Object.)
=	GetType	(Inherited from Object.)
·	MemberwiseClone	(Inherited from Object.)
ToString		(Inherited from Object.)

Top

▲ See Also

Reference

DivisionNode Class

Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

DivisionNode Evaluate Method

Calculates value of node.

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public decimal Evaluate()

Return Value

Type: Decimal Value of node

Implements

INode Evaluate

▲ See Also

Reference

DivisionNode Class

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

IBinaryOperationNode Interface

Function node that has two children.

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

The IBinaryOperationNode type exposes the following members.

▲ Properties

Name	Description
LeftNode	Left child node
Parent	Parent node (Inherited from INode.)
RightNode	Right child node

Top

■ Methods

	Name	Description
∃	Evaluate	Calculates value of node. (Inherited from INode.)

Top

■ See Also

Reference



IBinaryOperationNode Properties

The IBinaryOperationNode type exposes the following members.

→ Properties

	Name	Description
	LeftNode	Left child node
É	Parent	Parent node (Inherited from INode.)
	RightNode	Right child node

Top

▲ See Also

Reference

IBinaryOperationNode Interface Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

IBinaryOperationNode LeftNode Property

Left child node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

INode LeftNode { get; set; }
```

Property Value

Type: INode

▲ See Also

Reference

IBinaryOperationNode Interface Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

IBinaryOperationNode RightNode Property

Right child node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

INode RightNode { get; set; }
```

Property Value

Type: INode

▲ See Also

Reference

IBinaryOperationNode Interface Math.Nodes.Functions.Binary Namespace



IBinaryOperationNode Methods

The IBinaryOperationNode type exposes the following members.

Methods

	Name	Description
∃	Evaluate	Calculates value of node. (Inherited from INode.)

Top

▲ See Also

Reference

IBinaryOperationNode Interface Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator					
Send comments on this topic to email@tichymichal.net					

LogNode Class

Node used to calculate logarithm.

■ Inheritance Hierarchy System Object Math.Nodes.Functions.Binary LogNode

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

The **LogNode** type exposes the following members.

Constructors

Name Description		Description
=	LogNode	Initializes a new instance of the LogNode class

Top

▲ Properties

	Name	Description
*	LeftNode	Left child node
	Parent	Parent node
	RightNode	Right child node

Top

▲ Methods

	Name	Description
≟	Equals	(Inherited from Object.)
≡	Evaluate	Calculates value of node.
₹ •	Finalize	(Inherited from Object.)

=	GetHashCode	(Inherited from Object.)
= (GetType	(Inherited from Object.)
·	MemberwiseClone	(Inherited from Object.)
=	ToString	(Inherited from Object.)

Тор

▲ See Also

Reference



LogNode Constructor

Initializes a new instance of the LogNode class

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public LogNode()
```

▲ See Also

Reference

LogNode Class

Math.Nodes.Functions.Binary Namespace



LogNode Properties

The LogNode type exposes the following members.

→ Properties

Name	Description
LeftNode	Left child node
Parent	Parent node
RightNode	Right child node

Top

▲ See Also

Reference

LogNode Class Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

LogNode LeftNode Property

Left child node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode LeftNode { get; set; }
```

Property Value

Type: INode

Implements

IBinaryOperationNode LeftNode

▲ See Also

Reference

LogNode Class

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

LogNode Parent Property

Parent node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

■ See Also

Reference

LogNode Class

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

LogNode RightNode Property

Right child node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode RightNode { get; set; }
```

Property Value

Type: INode

Implements

IBinaryOperationNode RightNode

▲ See Also

Reference

LogNode Class



LogNode Methods

The LogNode type exposes the following members.

Methods

	Name	Description
≡ ₩	Equals	(Inherited from Object.)
≡	Evaluate	Calculates value of node.
₹	Finalize	(Inherited from Object.)
=	GetHashCode	(Inherited from Object.)
=	GetType	(Inherited from Object.)
₹	MemberwiseClone	(Inherited from Object.)
≡	ToString	(Inherited from Object.)

Top

▲ See Also

Reference

LogNode Class

Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

LogNode Evaluate Method

Calculates value of node.

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public decimal Evaluate()

Return Value

Type: Decimal Value of node

Implements

INode Evaluate

▲ See Also

Reference

LogNode Class

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

MultiplyNode Class

Node used to calculate multiplication.

■ Inheritance Hierarchy System Object Math.Nodes.Functions.Binary MultiplyNode

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

The MultiplyNode type exposes the following members.

Constructors

	Name	Description
≡	MultiplyNode	Initializes a new instance of the MultiplyNode class

Top

▲ Properties

	Name	Description
*	LeftNode	Left child node
	Parent	Parent node
	RightNode	Right child node

Top

■ Methods

	Name	Description
≟	Equals	(Inherited from Object.)
≘	Evaluate	Calculates value of node.
₹	Finalize	(Inherited from Object.)

=	GetHashCode	(Inherited from Object.)
= (GetType	(Inherited from Object.)
·	MemberwiseClone	(Inherited from Object.)
=	ToString	(Inherited from Object.)

Тор

▲ See Also

Reference



MultiplyNode Constructor

Initializes a new instance of the MultiplyNode class

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public MultiplyNode()
```

▲ See Also

Reference

MultiplyNode Class

Math.Nodes.Functions.Binary Namespace



MultiplyNode Properties

The MultiplyNode type exposes the following members.

→ Properties

Name	Description
LeftNode	Left child node
Parent	Parent node
RightNode	Right child node

Top

▲ See Also

Reference

MultiplyNode Class Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

MultiplyNode LeftNode Property

Left child node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode LeftNode { get; set; }
```

Property Value

Type: INode

Implements

IBinaryOperationNode LeftNode

▲ See Also

Reference

MultiplyNode Class

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

MultiplyNode Parent Property

Parent node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

▲ See Also

Reference

MultiplyNode Class

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

MultiplyNode RightNode Property

Right child node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode RightNode { get; set; }
```

Property Value

Type: INode

Implements

IBinaryOperationNode RightNode

▲ See Also

Reference

MultiplyNode Class



MultiplyNode Methods

The MultiplyNode type exposes the following members.

Methods

	Name	Description
=	Equals	(Inherited from Object.)
=	Evaluate	Calculates value of node.
Ģ [™]	Finalize	(Inherited from Object.)
=	GetHashCode	(Inherited from Object.)
=	GetType	(Inherited from Object.)
Ģ [™]	MemberwiseClone	(Inherited from Object.)
=	ToString	(Inherited from Object.)

Top

▲ See Also

Reference

MultiplyNode Class

Math. Nodes. Functions. Binary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

MultiplyNode Evaluate Method

Calculates value of node.

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public decimal Evaluate()

Return Value

Type: Decimal Value of node

Implements

INode Evaluate

▲ See Also

Reference

MultiplyNode Class

Documentation for IVS project 2 - calculator		
Send comments on this topic to email@tichymichal.net		

PowNode Class

Node used to calculate power of Inheritance Hierarchy system Object

Math.Nodes.Functions.Binary PowNode Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public class PowNode : IBinaryOperationNode, IFunctionNode, INode

The PowNode type exposes the following members.

Constructors

	Name	Description	
=	PowNode	Initializes a new instance of the PowNode class	

Top

▲ Properties

Name	Description
LeftNode	Left child node
Parent	Parent node
RightNode	Right child node

Top

■ Methods

	Name	Description
≡	Equals	(Inherited from Object.)
=	Evaluate	Calculates value of node.
g 🍑	Finalize	(Inherited from Object.)
≡	GetHashCode	(Inherited from Object.)

≡	GetType	(Inherited from Object.)
Ģ	MemberwiseClone	(Inherited from Object.)
=	ToString	(Inherited from Object.)

Top

▲ See Also

Reference



PowNode Constructor

Initializes a new instance of the PowNode class

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public PowNode()
```

▲ See Also

Reference

PowNode Class

Math.Nodes.Functions.Binary Namespace



PowNode Properties

The PowNode type exposes the following members.

→ Properties

Name	Description
LeftNode	Left child node
Parent	Parent node
RightNode	Right child node

Top

▲ See Also

Reference

PowNode Class Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

PowNode LeftNode Property

Left child node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode LeftNode { get; set; }
```

Property Value

Type: INode

Implements

IBinaryOperationNode LeftNode

▲ See Also

Reference

PowNode Class

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

PowNode Parent Property

Parent node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

▲ See Also

Reference

PowNode Class

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

PowNode RightNode Property

Right child node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode RightNode { get; set; }
```

Property Value

Type: INode

Implements

IBinaryOperationNode RightNode

▲ See Also

Reference

PowNode Class



PowNode Methods

The PowNode type exposes the following members.

Methods

	Name	Description
=	Equals	(Inherited from Object.)
=	Evaluate	Calculates value of node.
Ģ ₩	Finalize	(Inherited from Object.)
∃	GetHashCode	(Inherited from Object.)
≓	GetType	(Inherited from Object.)
Ģ [™]	MemberwiseClone	(Inherited from Object.)
≟	ToString	(Inherited from Object.)

Top

▲ See Also

Reference

PowNode Class

Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

PowNode Evaluate Method

Calculates value of node.

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public decimal Evaluate()

Return Value

Type: Decimal Value of node

Implements

INode Evaluate

■ See Also

Reference

PowNode Class

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

RandomNumberNode Class

Generates random decimal number - Inheritance Hierarchy System Object

Math.Nodes.Functions.Binary RandomNumberNode

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

The RandomNumberNode type exposes the following members.

Constructors

	Name	Description
≡	RandomNumberNode	Initializes new random number node.

Top

▲ Properties

Name	Description
LeftNode	Max value
Parent	Parent node
RightNode	Min value

Top

■ Methods

	Name	Description
≡©	Equals	(Inherited from Object.)
≟	Evaluate	Calculates value of node.
₹	Finalize	(Inherited from Object.)
≘	GetHashCode	(Inherited from Object.)

≡	GetType	(Inherited from Object.)
Ģ	MemberwiseClone	(Inherited from Object.)
=	ToString	(Inherited from Object.)

Top

▲ See Also

Reference



RandomNumberNode Constructor

Initializes new random number node.

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public RandomNumberNode()
```

▲ See Also

Reference

RandomNumberNode Class Math.Nodes.Functions.Binary Namespace



RandomNumberNode Properties

The RandomNumberNode type exposes the following members.

→ Properties

Name	Description
LeftNode	Max value
Parent	Parent node
RightNode	Min value

Top

▲ See Also

Reference

RandomNumberNode Class Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

RandomNumberNode LeftNode Property

Max value

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode LeftNode { get; set; }
```

Property Value

Type: INode

Implements

IBinaryOperationNode LeftNode

▲ See Also

Reference

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

RandomNumberNode Parent Property

Parent node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

▲ See Also

Reference

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

RandomNumberNode RightNode Property

Min value

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode RightNode { get; set; }
```

Property Value

Type: INode

Implements

IBinaryOperationNode RightNode

▲ See Also

Reference



RandomNumberNode Methods

The RandomNumberNode type exposes the following members.

Methods

	Name	Description
∃©	Equals	(Inherited from Object.)
≅©	Evaluate	Calculates value of node.
·	Finalize	(Inherited from Object.)
=	GetHashCode	(Inherited from Object.)
=\(\phi\)	GetType	(Inherited from Object.)
	MemberwiseClone	(Inherited from Object.)
= ©	ToString	(Inherited from Object.)

Top

▲ See Also

Reference

RandomNumberNode Class Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

RandomNumberNode Evaluate Method

Calculates value of node.

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public decimal Evaluate()

Return Value

Type: Decimal Value of node

Implements

INode Evaluate

▲ See Also

Reference

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

RootNode Class

Node used to calculate root - Inheritance Hierarchy system Object

Math.Nodes.Functions.Binary RootNode Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public class RootNode : IBinaryOperationNode, IFunctionNode, INode

The RootNode type exposes the following members.

Constructors

	Name	Description
=	RootNode	Initializes a new instance of the RootNode class

Top

▲ Properties

Name	Description
LeftNode	Left child node
Parent	Parent node
RightNode	Right child node

Top

■ Methods

	Name	Description
≡ ₩	Equals	(Inherited from Object.)
≡	Evaluate	Calculates value of node.
g 🍑	Finalize	(Inherited from Object.)
=	GetHashCode	(Inherited from Object.)

≡	GetType	(Inherited from Object.)
Ģ	MemberwiseClone	(Inherited from Object.)
=	ToString	(Inherited from Object.)

Top

▲ See Also

Reference



RootNode Constructor

Initializes a new instance of the RootNode class

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public RootNode()
```

▲ See Also

Reference

RootNode Class

Math.Nodes.Functions.Binary Namespace



RootNode Properties

The RootNode type exposes the following members.

→ Properties

Name	Description
LeftNode	Left child node
Parent	Parent node
RightNode	Right child node

Top

▲ See Also

Reference

RootNode Class Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator					
Send comments on this topic to email@tichymichal.net					

RootNode LeftNode Property

Left child node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode LeftNode { get; set; }
```

Property Value

Type: INode

Implements

IBinaryOperationNode LeftNode

▲ See Also

Reference

RootNode Class

Documentation for IVS project 2 - calculator			
Send comments on this topic to email@tichymichal.net			

RootNode Parent Property

Parent node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

▲ See Also

Reference

RootNode Class

Documentation for IVS project 2 - calculator			
Send comments on this topic to email@tichymichal.net			

RootNode RightNode Property

Right child node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode RightNode { get; set; }
```

Property Value

Type: INode

Implements

IBinaryOperationNode RightNode

▲ See Also

Reference

RootNode Class



RootNode Methods

The RootNode type exposes the following members.

Methods

N	lame	Description
≅ © E	Equals	(Inherited from Object.)
€ Q	Evaluate	Calculates value of node.
₹ [©]	inalize	(Inherited from Object.)
=0	GetHashCode	(Inherited from Object.)
=0	GetType	(Inherited from Object.)
•••• N	MemberwiseClone	(Inherited from Object.)
=♦	oString	(Inherited from Object.)

Top

▲ See Also

Reference

RootNode Class

Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator			
Send comments on this topic to email@tichymichal.net			

RootNode Evaluate Method

Calculates value of node.

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public decimal Evaluate()

Return Value

Type: Decimal Value of node

Implements

INode Evaluate

▲ See Also

Reference

RootNode Class

Documentation for IVS project 2 - calculator			
Send comments on this topic to email@tichymichal.net			

SubstractionNode Class

Node used to calculate substraction.

▲ Inheritance Hierarchy System Object Math.Nodes.Functions.Binary SubstractionNode

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

The SubstractionNode type exposes the following members.

Constructors

	Name	Description
≡ ₩	SubstractionNode	Initializes a new instance of the SubstractionNode class

Top

▲ Properties

Name	Description
LeftNode	Left child node
Parent	Parent node
RightNode	Right child node

Top

■ Methods

	Name	Description
≅©	Equals	(Inherited from Object.)
≡	Evaluate	Calculates value of node.

Ģ	Finalize	(Inherited from Object.)
=0	GetHashCode	(Inherited from Object.)
=0	GetType	(Inherited from Object.)
Ģ [©]	MemberwiseClone	(Inherited from Object.)
≓	ToString	(Inherited from Object.)

Top

▲ See Also

Reference



SubstractionNode Constructor

Initializes a new instance of the SubstractionNode class

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public SubstractionNode()
```

▲ See Also

Reference

SubstractionNode Class Math.Nodes.Functions.Binary Namespace



SubstractionNode Properties

The SubstractionNode type exposes the following members.

▲ Properties

Name	Description
LeftNode	Left child node
Parent	Parent node
RightNode	Right child node

Top

▲ See Also

Reference

SubstractionNode Class Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator			
Send comments on this topic to email@tichymichal.net			

SubstractionNode LeftNode Property

Left child node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode LeftNode { get; set; }
```

Property Value

Type: INode

Implements

IBinaryOperationNode LeftNode

▲ See Also

Reference

SubstractionNode Class Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

SubstractionNode Parent Property

Parent node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

■ See Also

Reference

SubstractionNode Class Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

SubstractionNode RightNode Property

Right child node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode RightNode { get; set; }
```

Property Value

Type: INode

Implements

IBinaryOperationNode RightNode

▲ See Also

Reference

SubstractionNode Class Math.Nodes.Functions.Binary Namespace



SubstractionNode Methods

The SubstractionNode type exposes the following members.

Methods

	Name	Description
=	Equals	(Inherited from Object.)
=	Evaluate	Calculates value of node.
Ģ [™]	Finalize	(Inherited from Object.)
=	GetHashCode	(Inherited from Object.)
=	GetType	(Inherited from Object.)
Ģ [™]	MemberwiseClone	(Inherited from Object.)
=	ToString	(Inherited from Object.)

Top

▲ See Also

Reference

SubstractionNode Class Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

SubstractionNode Evaluate Method

Calculates value of node.

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public decimal Evaluate()

Return Value

Type: Decimal Value of node

Implements

INode Evaluate

▲ See Also

Reference

SubstractionNode Class Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

SumNode Class

Node used to calculate sum.

■ Inheritance Hierarchy System Object Math.Nodes.Functions.Binary SumNode

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

The SumNode type exposes the following members.

Constructors

	Name	Description
=0	SumNode	Initializes a new instance of the SumNode class

Top

▲ Properties

Name	Description
LeftNode	Left child node
Parent	Parent node
RightNode	Right child node

Top

■ Methods

	Name	Description
≟	Equals	(Inherited from Object.)
≘	Evaluate	Calculates value of node.
₹	Finalize	(Inherited from Object.)

=	GetHashCode	(Inherited from Object.)
= (GetType	(Inherited from Object.)
·	MemberwiseClone	(Inherited from Object.)
=	ToString	(Inherited from Object.)

Тор

▲ See Also

Reference



SumNode Constructor

Initializes a new instance of the SumNode class

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public SumNode()
```

▲ See Also

Reference

SumNode Class

Math.Nodes.Functions.Binary Namespace



SumNode Properties

The SumNode type exposes the following members.

▲ Properties

Name	Description
LeftNode	Left child node
Parent	Parent node
RightNode	Right child node

Top

▲ See Also

Reference

SumNode Class Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

SumNode LeftNode Property

Left child node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode LeftNode { get; set; }
```

Property Value

Type: INode

Implements

IBinaryOperationNode LeftNode

▲ See Also

Reference

SumNode Class

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

SumNode Parent Property

Parent node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

▲ See Also

Reference

SumNode Class

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

SumNode RightNode Property

Right child node

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode RightNode { get; set; }
```

Property Value

Type: INode

Implements

IBinaryOperationNode RightNode

▲ See Also

Reference

SumNode Class



SumNode Methods

The SumNode type exposes the following members.

Methods

	Name	Description
ΕΦ	Equals	(Inherited from Object.)
≡	Evaluate	Calculates value of node.
₹	Finalize	(Inherited from Object.)
=	GetHashCode	(Inherited from Object.)
≡	GetType	(Inherited from Object.)
₹	MemberwiseClone	(Inherited from Object.)
≡	ToString	(Inherited from Object.)

Top

▲ See Also

Reference

SumNode Class

Math.Nodes.Functions.Binary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

SumNode Evaluate Method

Calculates value of node.

Namespace: Math.Nodes.Functions.Binary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public virtual decimal Evaluate()

Return Value

Type: Decimal Value of node

Implements

INode Evaluate

■ See Also

Reference

SumNode Class



Math.Nodes.Functions.Unary Namespace

Implementation of Unary nodes

	Class	Description
9 \$	CosNode	Node used to calculate cosinus.
9 \$	CotgNode	Node used to calculate cotangent.
4 \$	FactorialNode	Node used to calculate factorial.
4 \$	GammaNode	Node used to calculate gamma function
4 \$	NegationNode	Node used to negate value.
4 \$	PercentageNode	Node used to calculate percentage
4 \$	SinNode	Node used to calculate sinus.
4 \$	SqrtNode	Node used to calculate square root.
4 \$	TanNode	Node used to calculate tangent.

▲ Interfaces

	Interface	Description
⊶0	IFollowingUnaryOperationNode	Mathematical node that follows operand
o - 0	IPrecedingUnaryOperationNode	Node for mathematical operation that precedes operands
»-O	IUnaryOperationNode	Node that has only one child

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

CosNode Class

Node used to calculate cosinus.

▲ Inheritance Hierarchy System Object Math.Nodes.Functions.Unary CosNode

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

The CosNode type exposes the following members.

Constructors

	Name	Description	
=	CosNode	Initializes a new instance of the CosNode class	

Top

▲ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

■ Methods

	Name	Description
Ξ₩	Equals	(Inherited from Object.)
≡	Evaluate	Calculates value of node.
₹ •	Finalize	(Inherited from Object.)

≡	GetHashCode	(Inherited from Object.)
≡	GetType	(Inherited from Object.)
Ģ ©	MemberwiseClone	(Inherited from Object.)
≡	ToString	(Inherited from Object.)

Top

▲ See Also

Reference



CosNode Constructor

Initializes a new instance of the CosNode class

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public CosNode()
```

▲ See Also

Reference

CosNode Class

Math. Nodes. Functions. Unary Namespace



CosNode Properties

The CosNode type exposes the following members.

→ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

▲ See Also

Reference

CosNode Class Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

CosNode ChildNode Property

Child node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode ChildNode { get; set; }
```

Property Value

Type: INode

Implements

IUnaryOperationNode ChildNode

▲ See Also

Reference

CosNode Class

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

CosNode Parent Property

Parent node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

▲ See Also

Reference

CosNode Class



CosNode Methods

The CosNode type exposes the following members.

Methods

Equals (Inherited from Object.) Evaluate Calculates value of node.
Evaluate Calculates value of node.
Finalize (Inherited from Object.)
GetHashCode (Inherited from Object.)
GetType (Inherited from Object.)
MemberwiseClone (Inherited from Object.)
ToString (Inherited from Object.)

Top

▲ See Also

Reference

CosNode Class

Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

CosNode Evaluate Method

Calculates value of node.

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public decimal Evaluate()

Return Value

Type: Decimal Value of node

Implements

INode Evaluate

▲ See Also

Reference

CosNode Class

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

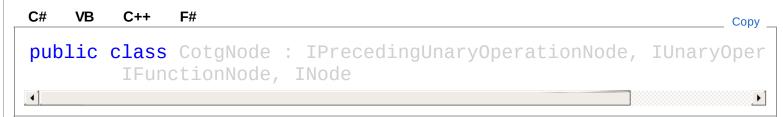
CotgNode Class

Node used to calculate cotangent.

■ Inheritance Hierarchy System Object Math.Nodes.Functions.Unary CotgNode

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax



The CotgNode type exposes the following members.

Constructors

	Name	Description
≡	CotgNode	Initializes a new instance of the CotgNode class

Top

▲ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

■ Methods

	Name	Description
Ξ₩	Equals	(Inherited from Object.)
≡	Evaluate	Calculates value of node.
₹ •	Finalize	(Inherited from Object.)

≡	GetHashCode	(Inherited from Object.)
≡	GetType	(Inherited from Object.)
Ģ ©	MemberwiseClone	(Inherited from Object.)
≡	ToString	(Inherited from Object.)

Top

▲ See Also

Reference



CotgNode Constructor

Initializes a new instance of the CotgNode class

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public CotgNode()
```

▲ See Also

Reference

CotgNode Class

Math. Nodes. Functions. Unary Namespace



CotgNode Properties

The CotgNode type exposes the following members.

→ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

▲ See Also

Reference

CotgNode Class Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

CotgNode ChildNode Property

Child node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode ChildNode { get; set; }
```

Property Value

Type: INode

Implements

IUnaryOperationNode ChildNode

▲ See Also

Reference

CotgNode Class

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

CotgNode Parent Property

Parent node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

▲ See Also

Reference

CotgNode Class



CotgNode Methods

The CotgNode type exposes the following members.

Methods

	Name	Description
∃©	Equals	(Inherited from Object.)
≅©	Evaluate	Calculates value of node.
·	Finalize	(Inherited from Object.)
=	GetHashCode	(Inherited from Object.)
=\(\phi\)	GetType	(Inherited from Object.)
	MemberwiseClone	(Inherited from Object.)
= ©	ToString	(Inherited from Object.)

Top

▲ See Also

Reference

CotgNode Class

Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

CotgNode Evaluate Method

Calculates value of node.

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public decimal Evaluate()

Return Value

Type: Decimal Value of node

Implements

INode Evaluate

▲ See Also

Reference

CotgNode Class

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

FactorialNode Class

Node used to calculate factorial.

■ Inheritance Hierarchy System Object Math.Nodes.Functions.Unary FactorialNode

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

The FactorialNode type exposes the following members.

Constructors

	Name	Description
=	FactorialNode	Initializes a new instance of the FactorialNode class

Top

■ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

■ Methods

	Name	Description
≡	Equals	(Inherited from Object.)
=	Evaluate	Calculates value of node. Cannot calculate for bigger numbers than 27. For decimal number is used gamma function.
∮® S	Factorial	Calculates factorial

ĕ	Finalize	(Inherited from Object.)
=	GetHashCode	(Inherited from Object.)
=	GetType	(Inherited from Object.)
Ģ [™]	MemberwiseClone	(Inherited from Object.)
=	ToString	(Inherited from Object.)

Top

▲ See Also

Reference



FactorialNode Constructor

Initializes a new instance of the FactorialNode class

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public FactorialNode()
```

▲ See Also

Reference

FactorialNode Class

Math.Nodes.Functions.Unary Namespace



FactorialNode Properties

The FactorialNode type exposes the following members.

▲ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

▲ See Also

Reference

FactorialNode Class Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

FactorialNode ChildNode Property

Child node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode ChildNode { get; set; }
```

Property Value

Type: INode

Implements

IUnaryOperationNode ChildNode

▲ See Also

Reference

FactorialNode Class Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

FactorialNode Parent Property

Parent node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

▲ See Also

Reference

FactorialNode Class Math.Nodes.Functions.Unary Namespace



FactorialNode Methods

The FactorialNode type exposes the following members.

Methods

	Name	Description
=0	Equals	(Inherited from Object.)
≓	Evaluate	Calculates value of node. Cannot calculate for bigger numbers than 27. For decimal number is used gamma function.
∮ [©] S	Factorial	Calculates factorial
ē ©	Finalize	(Inherited from Object.)
∃	GetHashCode	(Inherited from Object.)
≟	GetType	(Inherited from Object.)
Ģ ®	MemberwiseClone	(Inherited from Object.)
≟	ToString	(Inherited from Object.)

Top

▲ See Also

Reference

FactorialNode Class

Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

FactorialNode Evaluate Method

Calculates value of node. Cannot calculate for bigger numbers than 27. For decimal number is used gamma function.

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

Syntax

C# VB C++ F#

public decimal Evaluate()

Return Value

Type: Decimal

Factorial of child node value.

Implements

INode Evaluate

▲ See Also

Reference

FactorialNode Class

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

FactorialNode Factorial Method

Calculates factorial

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

childNodeValue

Type: System Decimal calculates factorial

Return Value

Type: Decimal

factorial of value - See Also

Reference

FactorialNode Class

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

GammaNode Class

Node used to calculate gamma function ▲ Inheritance Hierarchy system

Object Math.Nodes.Functions.Unary GammaNode

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax



The GammaNode type exposes the following members.

Constructors

	Name	Description
=	GammaNode	Initializes a new instance of the GammaNode class

Top

▲ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

■ Methods

	Name	Description
≟∳	Equals	(Inherited from Object.)
≟	Evaluate	Calculates value of node.
Ģ [™]	Finalize	(Inherited from Object.)
₹ [©] S	Gamma	Calculates gamma function.

	GetHashCode	(Inherited from Object.)
≡	GetType	(Inherited from Object.)
Ģ [™]	MemberwiseClone	(Inherited from Object.)
≡	ToString	(Inherited from Object.)

Top

▲ See Also

Reference



GammaNode Constructor

Initializes a new instance of the GammaNode class

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public GammaNode()
```

▲ See Also

Reference

GammaNode Class

Math. Nodes. Functions. Unary Namespace



GammaNode Properties

The GammaNode type exposes the following members.

→ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

▲ See Also

Reference

GammaNode Class Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

GammaNode ChildNode Property

Child node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode ChildNode { get; set; }
```

Property Value

Type: INode

Implements

IUnaryOperationNode ChildNode

▲ See Also

Reference

GammaNode Class

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

GammaNode Parent Property

Parent node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

▲ See Also

Reference

GammaNode Class



GammaNode Methods

The GammaNode type exposes the following members.

Methods

	Name	Description
=0	Equals	(Inherited from Object.)
=0	Evaluate	Calculates value of node.
Ģ [©]	Finalize	(Inherited from Object.)
₹ [©] S	Gamma	Calculates gamma function.
=0	GetHashCode	(Inherited from Object.)
=	GetType	(Inherited from Object.)
Ģ [©]	MemberwiseClone	(Inherited from Object.)
-= (ToString	(Inherited from Object.)

Top

▲ See Also

Reference

GammaNode Class

Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

GammaNode Evaluate Method

Calculates value of node.

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public decimal Evaluate()

Return Value

Type: Decimal Value of node

Implements

INode Evaluate

■ See Also

Reference

GammaNode Class

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

GammaNode Gamma Method

Calculates gamma function.

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

value

Type: System Double

value

Return Value

Type: Double

gamma function of value - See Also

Reference

GammaNode Class

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

IFollowingUnaryOperationNode Interface

Mathematical node that follows operand Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

The IFollowingUnaryOperationNode type exposes the following members.

▲ Properties

Name	Description
ChildNode	Child node (Inherited from IUnaryOperationNode.)
Parent	Parent node (Inherited from INode.)

Top

■ Methods

	Name	Description
≡	Evaluate	Calculates value of node. (Inherited from INode.)

Top

▲ See Also

Reference



IFollowingUnaryOperationNode Properties

The IFollowingUnaryOperationNode type exposes the following members.

→ Properties

Name	Description
ChildNode	Child node (Inherited from IUnaryOperationNode.)
Parent	Parent node (Inherited from INode.)

Top

▲ See Also

Reference

IFollowingUnaryOperationNode Interface Math.Nodes.Functions.Unary Namespace



IFollowingUnaryOperationNode Methods

The IFollowingUnaryOperationNode type exposes the following members.

Methods

	Name	Description
Ξ₩	Evaluate	Calculates value of node. (Inherited from INode.)

Top

▲ See Also

Reference

IFollowingUnaryOperationNode Interface Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

IPrecedingUnaryOperationNode Interface

Node for mathematical operation that precedes operands

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

The IPrecedingUnaryOperationNode type exposes the following members.

Properties

Name	Description
ChildNode	Child node (Inherited from IUnaryOperationNode.)
Parent	Parent node (Inherited from INode.)

Top

■ Methods

	Name	Description
≡	Evaluate	Calculates value of node. (Inherited from INode.)

Top

▲ See Also

Reference



IPrecedingUnaryOperationNode Properties

The IPrecedingUnaryOperationNode type exposes the following members.

→ Properties

Name	Description
ChildNode	Child node (Inherited from IUnaryOperationNode.)
Parent	Parent node (Inherited from INode.)

Top

▲ See Also

Reference

IPrecedingUnaryOperationNode Interface Math.Nodes.Functions.Unary Namespace



IPrecedingUnaryOperationNode Methods

The IPrecedingUnaryOperationNode type exposes the following members.

Methods

	Name	Description
≅ ©	Evaluate	Calculates value of node. (Inherited from INode.)

Top

▲ See Also

Reference

IPrecedingUnaryOperationNode Interface Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

IUnaryOperationNode Interface

Node that has only one child

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

The IUnaryOperationNode type exposes the following members.

▲ Properties

-	Name	Description
	ChildNode	Child node
	Parent	Parent node (Inherited from INode.)

Top

■ Methods

	Name	Description
∃	Evaluate	Calculates value of node. (Inherited from INode.)

Top

▲ See Also

Reference



IUnaryOperationNode Properties

The IUnaryOperationNode type exposes the following members.

→ Properties

Name	Description
ChildNode	Child node
Parent	Parent node (Inherited from INode.)

Top

▲ See Also

Reference

IUnaryOperationNode Interface Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator						
Send comments on this topic to email@tichymichal.net						

IUnaryOperationNode ChildNode Property

Child node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

INode ChildNode { get; set; }
```

Property Value

Type: INode

▲ See Also

Reference

IUnaryOperationNode Interface Math.Nodes.Functions.Unary Namespace



IUnaryOperationNode Methods

The IUnaryOperationNode type exposes the following members.

Methods

	Name	Description
≅ ©	Evaluate	Calculates value of node. (Inherited from INode.)

Top

▲ See Also

Reference

IUnaryOperationNode Interface Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

NegationNode Class

Node used to negate value.

■ Inheritance Hierarchy System Object Math.Nodes.Functions.Unary NegationNode

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

The NegationNode type exposes the following members.

▲ Constructors

	Name	Description
≟	NegationNode	Initializes a new instance of the NegationNode class

Top

▲ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

■ Methods

	Name	Description
Ξ₩	Equals	(Inherited from Object.)
≡	Evaluate	Calculates value of node.
ē	Finalize	(Inherited from Object.)
=0	GetHashCode	(Inherited from Object.)

=	GetType	(Inherited from Object.)
ē	MemberwiseClone	(Inherited from Object.)
≡	ToString	(Inherited from Object.)

Top

▲ See Also

Reference



NegationNode Constructor

Initializes a new instance of the NegationNode class

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public NegationNode()
```

▲ See Also

Reference

NegationNode Class

Math.Nodes.Functions.Unary Namespace



NegationNode Properties

The NegationNode type exposes the following members.

→ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

▲ See Also

Reference

NegationNode Class Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

NegationNode ChildNode Property

Child node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode ChildNode { get; set; }
```

Property Value

Type: INode

Implements

IUnaryOperationNode ChildNode

▲ See Also

Reference

NegationNode Class

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

NegationNode Parent Property

Parent node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

▲ See Also

Reference

NegationNode Class



NegationNode Methods

The NegationNode type exposes the following members.

Methods

	Name	Description
ΕΦ	Equals	(Inherited from Object.)
≡	Evaluate	Calculates value of node.
₹	Finalize	(Inherited from Object.)
=	GetHashCode	(Inherited from Object.)
≡	GetType	(Inherited from Object.)
₹	MemberwiseClone	(Inherited from Object.)
≡	ToString	(Inherited from Object.)

Top

▲ See Also

Reference

NegationNode Class

Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

NegationNode Evaluate Method

Calculates value of node.

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public decimal Evaluate()

Return Value

Type: Decimal Value of node

Implements

INode Evaluate

▲ See Also

Reference

NegationNode Class

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

PercentageNode Class

Node used to calculate percentage - Inheritance Hierarchy System Object

Math.Nodes.Functions.Unary PercentageNode Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

The PercentageNode type exposes the following members.

Constructors

	Name	Description
=	PercentageNode	Initializes a new instance of the PercentageNode class

Top

▲ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

Methods

	Name	Description
≡	Equals	(Inherited from Object.)
≡	Evaluate	Calculates value of node.
₹ •	Finalize	(Inherited from Object.)
≡	GetHashCode	(Inherited from Object.)
≡	GetType	(Inherited from Object.)



Top

▲ See Also

Reference



PercentageNode Constructor

Initializes a new instance of the PercentageNode class

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#
public PercentageNode()
```

▲ See Also

Reference

PercentageNode Class Math.Nodes.Functions.Unary Namespace



PercentageNode Properties

The PercentageNode type exposes the following members.

▲ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

▲ See Also

Reference

PercentageNode Class Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator		
Send comments on this topic to email@tichymichal.net		

PercentageNode ChildNode Property

Child node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode ChildNode { get; set; }
```

Property Value

Type: INode

Implements

IUnaryOperationNode ChildNode

▲ See Also

Reference

PercentageNode Class Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator		
Send comments on this topic to email@tichymichal.net		

PercentageNode Parent Property

Parent node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

■ See Also

Reference

PercentageNode Class Math.Nodes.Functions.Unary Namespace



PercentageNode Methods

The PercentageNode type exposes the following members.

Methods

	Name	Description
≟	Equals	(Inherited from Object.)
=	Evaluate	Calculates value of node.
ij [™]	Finalize	(Inherited from Object.)
=	GetHashCode	(Inherited from Object.)
=	GetType	(Inherited from Object.)
Ģ [™]	MemberwiseClone	(Inherited from Object.)
=	ToString	(Inherited from Object.)

Top

▲ See Also

Reference

PercentageNode Class Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator		
Send comments on this topic to email@tichymichal.net		

PercentageNode Evaluate Method

Calculates value of node.

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public virtual decimal Evaluate()

Return Value

Type: Decimal Value of node

Implements

INode Evaluate

▲ See Also

Reference

PercentageNode Class Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator		
Send comments on this topic to email@tichymichal.net		

SinNode Class

Node used to calculate sinus.

■ Inheritance Hierarchy System Object Math.Nodes.Functions.Unary SinNode

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

The SinNode type exposes the following members.

Constructors

	Name	Description
=0	SinNode	Initializes a new instance of the SinNode class

Top

▲ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

Methods

	Name	Description
≡ ₩	Equals	(Inherited from Object.)
=	Evaluate	Calculates value of node.
₹ •	Finalize	(Inherited from Object.)
=	GetHashCode	(Inherited from Object.)

≡	GetType	(Inherited from Object.)
	MemberwiseClone	(Inherited from Object.)
≡	ToString	(Inherited from Object.)

Top

▲ See Also

Reference



SinNode Constructor

Initializes a new instance of the SinNode class

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public SinNode()
```

▲ See Also

Reference

SinNode Class

Math. Nodes. Functions. Unary Namespace



SinNode Properties

The SinNode type exposes the following members.

→ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

▲ See Also

Reference

SinNode Class

Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

SinNode ChildNode Property

Child node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode ChildNode { get; set; }
```

Property Value

Type: INode

Implements

IUnaryOperationNode ChildNode

▲ See Also

Reference

SinNode Class

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

SinNode Parent Property

Parent node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

▲ See Also

Reference

SinNode Class



SinNode Methods

The SinNode type exposes the following members.

Methods

	Name	Description
ΕΦ	Equals	(Inherited from Object.)
≡	Evaluate	Calculates value of node.
₹	Finalize	(Inherited from Object.)
=	GetHashCode	(Inherited from Object.)
≡	GetType	(Inherited from Object.)
₹	MemberwiseClone	(Inherited from Object.)
≡	ToString	(Inherited from Object.)

Top

▲ See Also

Reference

SinNode Class

Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

SinNode Evaluate Method

Calculates value of node.

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public decimal Evaluate()

Return Value

Type: Decimal Value of node

Implements

INode Evaluate

▲ See Also

Reference

SinNode Class

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

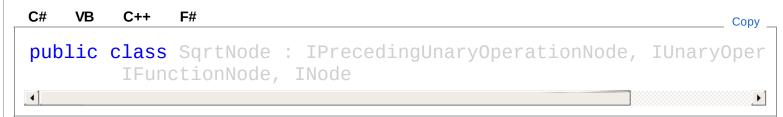
SqrtNode Class

Node used to calculate square root.

■ Inheritance Hierarchy System Object Math.Nodes.Functions.Unary SqrtNode

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax



The **SqrtNode** type exposes the following members.

Constructors

	Name	Description
≡	SqrtNode	Initializes a new instance of the SqrtNode class

Top

▲ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

Methods

	Name	Description
≟	Equals	(Inherited from Object.)
≘	Evaluate	Calculates value of node.
₹	Finalize	(Inherited from Object.)

≡	GetHashCode	(Inherited from Object.)
≡	GetType	(Inherited from Object.)
Ģ ©	MemberwiseClone	(Inherited from Object.)
≡	ToString	(Inherited from Object.)

Top

▲ See Also

Reference



SqrtNode Constructor

Initializes a new instance of the SqrtNode class

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public SqrtNode()
```

▲ See Also

Reference

SqrtNode Class

Math. Nodes. Functions. Unary Namespace



SqrtNode Properties

The SqrtNode type exposes the following members.

→ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

▲ See Also

Reference

SqrtNode Class Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

SqrtNode ChildNode Property

Child node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode ChildNode { get; set; }
```

Property Value

Type: INode

Implements

IUnaryOperationNode ChildNode

▲ See Also

Reference

SqrtNode Class

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

SqrtNode Parent Property

Parent node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

■ See Also

Reference

SqrtNode Class



SqrtNode Methods

The SqrtNode type exposes the following members.

Methods

Equals (Inherited from Object.) Evaluate Calculates value of node.
Evaluate Calculates value of node.
Finalize (Inherited from Object.)
GetHashCode (Inherited from Object.)
GetType (Inherited from Object.)
MemberwiseClone (Inherited from Object.)
ToString (Inherited from Object.)

Top

▲ See Also

Reference

SqrtNode Class

Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

SqrtNode Evaluate Method

Calculates value of node.

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public decimal Evaluate()

Return Value

Type: Decimal Value of node

Implements

INode Evaluate

▲ See Also

Reference

SqrtNode Class

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

TanNode Class

Node used to calculate tangent.

■ Inheritance Hierarchy System Object Math.Nodes.Functions.Unary TanNode

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

The TanNode type exposes the following members.

Constructors

	Name	Description
≡	TanNode	Initializes a new instance of the TanNode class

Top

▲ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

Methods

	Name	Description
∃©	Equals	(Inherited from Object.)
=\(\psi\	Evaluate	Calculates value of node.
ē	Finalize	(Inherited from Object.)
=	GetHashCode	(Inherited from Object.)

≡	GetType	(Inherited from Object.)
9	MemberwiseClone	(Inherited from Object.)
≡	ToString	(Inherited from Object.)

Top

▲ See Also

Reference



TanNode Constructor

Initializes a new instance of the TanNode class

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public TanNode()
```

▲ See Also

Reference

TanNode Class

Math. Nodes. Functions. Unary Namespace



TanNode Properties

The TanNode type exposes the following members.

→ Properties

Name	Description
ChildNode	Child node
Parent	Parent node

Top

▲ See Also

Reference

TanNode Class Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

TanNode ChildNode Property

Child node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode ChildNode { get; set; }
```

Property Value

Type: INode

Implements

IUnaryOperationNode ChildNode

▲ See Also

Reference

TanNode Class

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

TanNode Parent Property

Parent node

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

▲ See Also

Reference

TanNode Class

Math.Nodes.Functions.Unary Namespace



TanNode Methods

The TanNode type exposes the following members.

Methods

	Name	Description
≡	Equals	(Inherited from Object.)
≅	Evaluate	Calculates value of node.
₹	Finalize	(Inherited from Object.)
=	GetHashCode	(Inherited from Object.)
≡	GetType	(Inherited from Object.)
₹	MemberwiseClone	(Inherited from Object.)
≅	ToString	(Inherited from Object.)
		, ,

Top

▲ See Also

Reference

TanNode Class

Math.Nodes.Functions.Unary Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

TanNode Evaluate Method

Calculates value of node.

Namespace: Math.Nodes.Functions.Unary

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public decimal Evaluate()

Return Value

Type: Decimal Value of node

Implements

INode Evaluate

▲ See Also

Reference

TanNode Class

Math.Nodes.Functions.Unary Namespace



Math.Nodes.Values Namespace

Implementation of Value nodes

	Class	Description
4 \$	NumberNode	Node used to store numeric value.

▲ Interfaces

	Interface	Description
o-O	IValueNode	Node that does not have child nodes but has some value.

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

IValueNode Interface

Node that does not have child nodes but has some value.

Namespace: Math.Nodes.Values

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

Syntax

C# VB C++ F#

public interface IValueNode : INode

The IValueNode type exposes the following members.

▲ Properties

Name	Description
Parent	Parent node (Inherited from INode.)

Top

■ Methods

	Name	Description
∃	Evaluate	Calculates value of node. (Inherited from INode.)

Top

■ See Also

Reference



IValueNode Properties

The IValueNode type exposes the following members.

→ Properties

	Name	Description
E	Parent	Parent node (Inherited from INode.)

Top

▲ See Also

Reference

IValueNode Interface Math.Nodes.Values Namespace



IValueNode Methods

The IValueNode type exposes the following members.

Methods

	Name	Description
∃	Evaluate	Calculates value of node. (Inherited from INode.)

Top

▲ See Also

Reference

IValueNode Interface Math.Nodes.Values Namespace

Documentation for IVS project 2 - calculator		
Send comments on this topic to email@tichymichal.net		

NumberNode Class

Node used to store numeric value.

■ Inheritance Hierarchy System Object Math.Nodes.Values NumberNode

Namespace: Math.Nodes.Values

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public class NumberNode : IValueNode, INode

The NumberNode type exposes the following members.

Constructors

	Name	Description
≅ ©	NumberNode(Decimal)	Initializes new number node with given value.
≡	NumberNode(String)	Parses given value and initialize new number now from it.

Top

▲ Properties

·	Name	Description
	Parent	Parent node

Top

Methods

	Name	Description
≡ ₩	Equals	(Inherited from Object.)
≡	Evaluate	Calculates value of node.
ē Ģ	Finalize	(Inherited from Object.)
=	GetHashCode	(Inherited from Object.)

=	GetType	(Inherited from Object.)
∌ S	IsNumber	checks if given string can be converted to number.
Ģ	MemberwiseClone	(Inherited from Object.)
=	ToString	(Inherited from Object.)

Top

▲ Fields

	Name	Description
9 ♥	Value	Value of the node.

Top

▲ See Also

Reference



NumberNode Constructor

■ Overload List

	Name	Description
≡	NumberNode(Decimal)	Initializes new number node with given value.
≓	NumberNode(String)	Parses given value and initialize new number now from it.

Top

▲ See Also

Reference

NumberNode Class Math.Nodes.Values Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

NumberNode Constructor (Decimal)

Initializes new number node with given value.

Namespace: Math.Nodes.Values

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public NumberNode(
    decimal value
)
```

Parameters

value

Type: System Decimal

future value

▲ See Also

Reference

NumberNode Class

NumberNode Overload

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

NumberNode Constructor (String)

Parses given value and initialize new number now from it.

Namespace: Math.Nodes.Values

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public NumberNode(
    string value
)
```

Parameters

value

Type: System String

future value

■ See Also

Reference

NumberNode Class

NumberNode Overload



NumberNode Properties

The NumberNode type exposes the following members.

→ Properties

Name	Description
Parent	Parent node

Top

▲ See Also

Reference NumberNode Class Math.Nodes.Values Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

NumberNode Parent Property

Parent node

Namespace: Math.Nodes.Values

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public INode Parent { get; set; }
```

Property Value

Type: INode

Implements

INode Parent

▲ See Also

Reference

NumberNode Class



NumberNode Methods

The NumberNode type exposes the following members.

Methods

	Name	Description
≡	Equals	(Inherited from Object.)
≡	Evaluate	Calculates value of node.
9	Finalize	(Inherited from Object.)
≡	GetHashCode	(Inherited from Object.)
≡	GetType	(Inherited from Object.)
=0 S	IsNumber	checks if given string can be converted to number.
₹ •	MemberwiseClone	(Inherited from Object.)
=	ToString	(Inherited from Object.)

Top

▲ See Also

Reference

NumberNode Class

Math.Nodes.Values Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

NumberNode Evaluate Method

Calculates value of node.

Namespace: Math.Nodes.Values

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public virtual decimal Evaluate()

Return Value

Type: Decimal Value of node

Implements

INode Evaluate

■ See Also

Reference

NumberNode Class Math.Nodes.Values Namespace

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

NumberNode IsNumber Method

checks if given string can be converted to number.

Namespace: Math.Nodes.Values

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

text

Type: System String

source text

Return Value

Type: Boolean

Whether given string is valid number.

▲ See Also

Reference

NumberNode Class



NumberNode Fields

The NumberNode type exposes the following members.

	Name	Description
9 €	Value	Value of the node.

Top

▲ See Also

Reference NumberNode Class Math.Nodes.Values Namespace



NumberNodeValue Field

Value of the node.

Namespace: Math.Nodes.Values

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

protected readonly decimal Value
```

Field Value Type: Decimal

▲ See Also

Reference

NumberNode Class Math.Nodes.Values Namespace



Math.Tokenizer Namespace

Expression tokenizer

	Class	Description
9 3	MathOperatorDescription	Description of mathematical operation.
9 \$	Tokenizer	Parses math expression to individual tokens.

▲ Interfaces

	Interface	Description
o - 0	ITokenizer	Parses math expression to individual tokens.

▲ Enumerations

Enumeration	Description
OperationCategory	Categories of math operations

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

ITokenizer Interface

Parses math expression to individual tokens.

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public interface ITokenizer

The ITokenizer type exposes the following members.

▲ Properties

Name	Description
RegisteredOperators	Collection of all currently registered mathematical operations.

Top

■ Methods

	Name	Description
≅©	AssignOperatorDescriptionToTokens	Assigns string tokens to matching operator descriptions.
≓©	GetPossibleNextMathOperators	Gets all next possible math operators.
≘	RegisterOperator	Registers additional math operator.
=©	SplitExpressionToTokens	Splits expression to individual tokens.

Top

■ See Also

Reference

Math. Tokenizer Namespace



ITokenizer Properties

The ITokenizer type exposes the following members.

→ Properties

Name	Description
RegisteredOperators	Collection of all currently registered mathematical operations.

Top

▲ See Also

Reference

ITokenizer Interface Math.Tokenizer Namespace

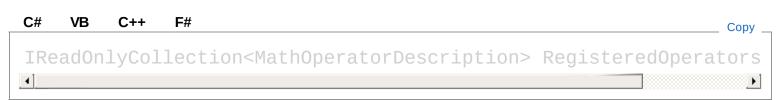
Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

ITokenizer RegisteredOperators Property

Collection of all currently registered mathematical operations.

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax



Property Value

Type: IReadOnlyCollection MathOperatorDescription

▲ See Also

Reference



ITokenizer Methods

The ITokenizer type exposes the following members.

Methods

	Name	Description
≡	AssignOperatorDescriptionToTokens	Assigns string tokens to matching operator descriptions.
ΞΦ	GetPossibleNextMathOperators	Gets all next possible math operators.
± ©	RegisterOperator	Registers additional math operator.
ΞΦ	SplitExpressionToTokens	Splits expression to individual tokens.

Top

▲ See Also

Reference

ITokenizer Interface Math.Tokenizer Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

ITokenizer AssignOperatorDescriptionToTokens Method

Assigns string tokens to matching operator descriptions.

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

tokens

Type: System.Collections.Generic ICollection String Collection of expression tokens.

Return Value

Type: ICollection ValueTuple String, MathOperatorDescription

Collection of token and its operator description.

▲ See Also

Reference

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

ITokenizer GetPossibleNextMathOperators Method

Gets all next possible math operators.

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

previousExpressionPart

Type: System Nullable ExpressionPartTypes

Type of preceding token.

Return Value

Type: ICollection MathOperatorDescription

Collection of possible math operators.

■ See Also

Reference

Documentation for IVS project 2 - calculator				
Send comments on this topic to email@tichymichal.net				

ITokenizer RegisterOperator Method

Registers additional math operator.

Namespace: Math.Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

operator Description

Type: Math.Tokenizer MathOperatorDescription

operator description

▲ See Also

Reference

Documentation for IVS project 2 - calculator		
Send comments on this topic to email@tichymichal.net		

ITokenizer SplitExpressionToTokens Method

Splits expression to individual tokens.

Namespace: Math.Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

expression

Type: System String Mathematical expression.

Return Value

Type: **ICollection String** Collection of tokens.

▲ See Also

Reference

Documentation for IVS project 2 - calculator		
Send comments on this topic to email@tichymichal.net		

MathOperatorDescription Class

Description of mathematical operation.

■ Inheritance Hierarchy System Object Math. Tokenizer

MathOperatorDescription

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public class MathOperatorDescription

The MathOperatorDescription type exposes the following members.

Constructors

	Name	Description
=0	MathOperatorDescription	Initializes new operator description.

Тор

■ Methods

	Name	Description
₫ڼ	Equals	Compares given object and current instance. (Overrides Object Equals(Object).)
₹	Finalize	(Inherited from Object.)
≡	GetHashCode	(Inherited from Object.)
≡	GetType	(Inherited from Object.)
<u> </u>	MemberwiseClone	(Inherited from Object.)
≅©	ToString	Returns text representation (Overrides Object ToString .)

▲ Fields

	Name	Description
•	NodeType	Type of Node that will be created.
•	OperationCategory	
•	OperationPriority	Determines priority of operations.
•	TextRepresentation	Text representation of mathematical operator (eq. + , sqrt ,)

Top

▲ See Also

Reference

Math.Tokenizer Namespace

Documentation for IVS project 2 - calculator		
Send comments on this topic to email@tichymichal.net		

MathOperatorDescription Constructor

Initializes new operator description.

Namespace: Math.Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

nodeType

Type: System Type

Type of node that will be created.

textRepresentation

Type: System String

Text representation of mathematical operator (eq. + , sqrt , ...)

operationPriority

Type: Math.Nodes.Functions OperationPriority

Type of operation operationCategory

Type: Math. Tokenizer OperationCategory

Category of operation

Exceptions

Exception	Condition
ArgumentException	Throws when provided arguments are not correct.

▲ See Also

Reference

MathOperatorDescription Class Math.Tokenizer Namespace



MathOperatorDescription Methods

The MathOperatorDescription type exposes the following members.

Methods

	Name	Description
Ξ₩	Equals	Compares given object and current instance. (Overrides Object Equals(Object).)
Ģ ©	Finalize	(Inherited from Object.)
≡	GetHashCode	(Inherited from Object.)
≡	GetType	(Inherited from Object.)
9 W	MemberwiseClone	(Inherited from Object.)
=0	ToString	Returns text representation (Overrides Object ToString .)

Top

▲ See Also

Reference

MathOperatorDescription Class Math.Tokenizer Namespace

Documentation for IVS project 2 - calculator		
Send comments on this topic to email@tichymichal.net		

MathOperatorDescription Equals Method

Compares given object and current instance.

Namespace: Math.Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

```
C# VB C++ F#

public override bool Equals(
    Object obj
)
```

Parameters

obi

Type: System Object Object to compare

Return Value

Type: Boolean

Whether given objects is same as current instance.

▲ See Also

Reference

MathOperatorDescription Class Math.Tokenizer Namespace

Documentation for IVS project 2 - calculator		
Send comments on this topic to email@tichymichal.net		

MathOperatorDescription ToString Method

Returns text representation

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public override string ToString()

Return Value

Type: String

text representation **See Also**

Reference

MathOperatorDescription Class Math.Tokenizer Namespace



MathOperatorDescription Fields

The MathOperatorDescription type exposes the following members.

	Name	Description
٠	NodeType	Type of Node that will be created.
•	OperationCategory	
•	OperationPriority	Determines priority of operations.
•	TextRepresentation	Text representation of mathematical operator (eq. + , sqrt ,)

Top

▲ See Also

Reference

MathOperatorDescription Class Math.Tokenizer Namespace



MathOperatorDescriptionNodeType Field

Type of Node that will be created.

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public readonly Type NodeType
```

Field Value

Type: Type

▲ See Also

Reference

MathOperatorDescription Class Math.Tokenizer Namespace



MathOperatorDescriptionOperationCategory Field

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public readonly OperationCategory OperationCategory
```

Field Value

Type: OperationCategory

▲ See Also

Reference

MathOperatorDescription Class Math.Tokenizer Namespace



MathOperatorDescriptionOperationPriority Field

Determines priority of operations.

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public readonly OperationPriority OperationPriority
```

Field Value

Type: OperationPriority

▲ See Also

Reference

MathOperatorDescription Class Math.Tokenizer Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

MathOperatorDescription TextRepresentation Field

Text representation of mathematical operator (eq. + , sqrt , ...)

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public readonly string TextRepresentation

Field Value

Type: String

■ See Also

Reference

MathOperatorDescription Class Math.Tokenizer Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

OperationCategory Enumeration

Categories of math operations

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F# Copy

public enum OperationCategory

Members

Member name	Value	Description
Other	0	Undefined
Basic	1	Basic math operations
Goniometric	2	Goniometric operations
Special	3	Special Operations

▲ See Also

Reference

Math. Tokenizer Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

Tokenizer Class

Parses math expression to individual tokens.

■ Inheritance Hierarchy System Object Math. Tokenizer Tokenizer

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

C# VB C++ F#

public class Tokenizer : ITokenizer

The Tokenizer type exposes the following members.

Constructors

	Name	Description
=©	Tokenizer	Initializes new tokenizer class and registers default operators.
≅ ©	Tokenizer(ICollection MathOperatorDescription)	Initializes new tokenizer and registers given operators. Default operators are not registered.

Top

▲ Properties

·	Name	Description
	RegisteredOperators	Collection of all currently registered mathematical operations.

Top

■ Methods

	Name	Description
≐	AssignOperatorDescriptionToTokens	Assigns string tokens to matching operator descriptions.

	Equals	(Inherited from Object.)
Ģ ̃ ₩	Finalize	(Inherited from Object.)
₫ ڼ	GetHashCode	(Inherited from Object.)
₹	GetMathOperatorThatMatchesTokenTheBest	Picks most suiting operator from collection of possible operators.
∃	GetPossibleNextMathOperators	Gets all next possible math operators.
=0 S	GetPrecedingExpressionPartType	
≡	GetType	(Inherited from Object.)
Ģ [™]	MemberwiseClone	(Inherited from Object.)
<u> </u>	RegisterDefaultOperators	Registers default operators.
=	RegisterOperator	Registers given operator.
Ģ [™]	SeparateOperatorFromText	Pulls operator from text.
=	SplitExpressionToTokens	Splits expression to individual tokens.
₫♦	ToString	(Inherited from Object.)

Тор

▲ See Also

Reference

Math.Tokenizer Namespace



Tokenizer Constructor

■ Overload List

	Name	Description
⊴	Tokenizer	Initializes new tokenizer class and registers default operators.
≟	Tokenizer(ICollectionMathOperatorDescription)	Initializes new tokenizer and registers given operators. Default operators are not registered.

Top

▲ See Also

Reference

Tokenizer Class Math.Tokenizer Namespace



Tokenizer Constructor

Initializes new tokenizer class and registers default operators.

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

public Tokenizer()
```

▲ See Also

Reference

Tokenizer Class Tokenizer Overload Math.Tokenizer Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

Tokenizer Constructor (ICollection MathOperatorDescription)

Initializes new tokenizer and registers given operators. Default operators are not registered.

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

operators

Type: System.Collections.Generic ICollection MathOperatorDescription Math operator descriptions to be registered.

▲ See Also

Reference

Tokenizer Class Tokenizer Overload Math.Tokenizer Namespace



Tokenizer Properties

The Tokenizer type exposes the following members.

→ Properties

	Name	Description
E	RegisteredOperators	Collection of all currently registered mathematical operations.

Top

▲ See Also

Reference

Tokenizer Class Math.Tokenizer Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

Tokenizer RegisteredOperators Property

Collection of all currently registered mathematical operations.

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax



Property Value

Type: IReadOnlyCollection MathOperatorDescription

Implements

ITokenizer RegisteredOperators

▲ See Also

Reference

Tokenizer Class

Math.Tokenizer Namespace



Tokenizer Methods

The Tokenizer type exposes the following members.

Methods

4 1010ti 10t	d O	
	Name	Description
≓	AssignOperatorDescriptionToTokens	Assigns string tokens to matching operator descriptions.
=	Equals	(Inherited from Object.)
·	Finalize	(Inherited from Object.)
= (GetHashCode	(Inherited from Object.)
Ģ ∳	GetMathOperatorThatMatchesTokenTheBest	Picks most suiting operator from collection of possible operators.
=	GetPossibleNextMathOperators	Gets all next possible math operators.
≅ ŷ S	GetPrecedingExpressionPartType	
= 0	GetType	(Inherited from Object.)
<u></u>	MemberwiseClone	(Inherited from Object.)
₹ •	RegisterDefaultOperators	Registers default operators.
≅©	RegisterOperator	Registers given operator.
₹	SeparateOperatorFromText	Pulls operator from text.
≡	SplitExpressionToTokens	Splits expression to individual tokens.
= 0	ToString	(Inherited from Object.)

Top

▲ See Also

Reference

Tokenizer Class Math.Tokenizer Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

Tokenizer AssignOperatorDescriptionToTokens Method

Assigns string tokens to matching operator descriptions.

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

tokens

Type: System.Collections.Generic ICollection String

Collection of expression tokens.

Return Value

Type: ICollection ValueTuple String, MathOperatorDescription

Collection of token and its operator description.

Implements

ITokenizer AssignOperatorDescriptionToTokens(ICollection String)

▲ See Also

Reference

Tokenizer Class

Math. Tokenizer Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

Tokenizer GetMathOperatorThatMatchesTokenTheBest Method

Picks most suiting operator from collection of possible operators.

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

possibleDescriptions

Type: System.Collections.Generic ICollection MathOperatorDescription

Collection of possible operators.

previousExpressionPart

Type: System Nullable ExpressionPartTypes

Preceding expression part.

Return Value

Type: MathOperatorDescription
Best matching operator description.

▲ Exceptions

Exception	Condition
ArgumentException	Throws when no or multiple matching operators were found.

■ See Also

Reference

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

Tokenizer GetPossibleNextMathOperators Method

Gets all next possible math operators.

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

previousExpressionPart

Type: System Nullable ExpressionPartTypes

Type of preceding token.

Return Value

Type: ICollection MathOperatorDescription

Collection of possible math operators.

Implements

ITokenizer GetPossibleNextMathOperators(Nullable ExpressionPartTypes)

▲ See Also

Reference

Tokenizer Class

Math. Tokenizer Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

Tokenizer GetPrecedingExpressionPartType Method

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

lastExpressionToken

Type: System Nullable ValueTuple String, MathOperatorDescription

Return Value

Type: Nullable ExpressionPartTypes

▲ See Also

Reference



TokenizerRegisterDefaultOperators Method

Registers default operators.

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0)

■ Syntax

```
C# VB C++ F#

protected void RegisterDefaultOperators()
```

▲ See Also

Reference

Tokenizer Class Math.Tokenizer Namespace

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

Tokenizer RegisterOperator Method

Registers given operator.

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

operatorDescription

Type: Math.Tokenizer MathOperatorDescription

description of operator

Implements

ITokenizer RegisterOperator(MathOperatorDescription)

▲ Exceptions

Exception	Condition
ArgumentException	Throws argument exception when the same operator is allready registered.

▲ See Also

Reference

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

Tokenizer SeparateOperatorFromText Method

Pulls operator from text.

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

text

Type: System String

source text

operator TextRepresentation

Type: System String operator to exprect

Return Value

Type: ICollection String

Collection with extracted operator and rest of the string.

▲ See Also

Reference

Documentation for IVS project 2 - calculator
Send comments on this topic to email@tichymichal.net

Tokenizer SplitExpressionToTokens Method

Splits expression to individual tokens.

Namespace: Math. Tokenizer

Assembly: Math (in Math.dll) Version: 1.0.0.0 (1.0.0.0) - Syntax

Parameters

expression

Type: System String Mathematical expression.

Return Value

Type: **ICollection String** Collection of tokens.

Implements

ITokenizer SplitExpressionToTokens(String)

■ See Also

Reference