GraphFramework

Erzeugt von Doxygen 1.8.9.1

Die Jun 30 2015 08:34:18

Inhaltsverzeichnis

1	Verz	eichnis	der Namensbereiche	1
	1.1	Pakete		1
2	Hier	archie-\	/erzeichnis	3
	2.1	Klasse	nhierarchie	3
3	Klas	sen-Ver	zeichnis	5
	3.1	Auflistu	ing der Klassen	5
4	Date	i-Verzei	chnis	7
	4.1	Auflistu	ing der Dateien	7
5	Dok	umentat	tion der Namensbereiche	9
	5.1	Paket 0	GraphFramework	9
	5.2	Paket (GraphFramework.Interfaces	9
6	Klas	sen-Do	kumentation	11
	6.1	GraphF	Framework.Attribute Klassenreferenz	11
		6.1.1	Ausführliche Beschreibung	12
		6.1.2	Beschreibung der Konstruktoren und Destruktoren	12
			6.1.2.1 Attribute	12
		6.1.3	Dokumentation der Propertys	12
			6.1.3.1 Name	12
			6.1.3.2 Type	12
			6.1.3.3 Value	12
	6.2	GraphF	Framework.Edge Klassenreferenz	12
		6.2.1	Ausführliche Beschreibung	14
		6.2.2	Beschreibung der Konstruktoren und Destruktoren	14
			6.2.2.1 Edge	14
		6.2.3	Dokumentation der Propertys	14
			6.2.3.1 Node1	14
			6.2.3.2 Node2	14
	63	Granh	Framework Granh Klassenreferenz	14

iv INHALTSVERZEICHNIS

	6.3.1	Ausführlic	che Beschreibung	16
	6.3.2	Beschreib	oung der Konstruktoren und Destruktoren	16
		6.3.2.1	Graph	16
	6.3.3	Dokumen	tation der Elementfunktionen	17
		6.3.3.1	AddEdge	17
		6.3.3.2	AddEdge	18
		6.3.3.3	AddGraph	18
		6.3.3.4	AddGraph	19
		6.3.3.5	AddNode	19
		6.3.3.6	GetEdges	20
		6.3.3.7	GetSingleNodes	20
		6.3.3.8	MergeGraphs	20
		6.3.3.9	MergeGraphs	21
		6.3.3.10	RemoveEdge	22
		6.3.3.11	RemoveNode	22
	6.3.4	Dokumen	tation der Propertys	23
		6.3.4.1	Edges	23
		6.3.4.2	Nodes	23
6.4	GraphF	ramework	GraphElement Klassenreferenz	23
	6.4.1	Ausführlic	che Beschreibung	24
	6.4.2	Beschreib	oung der Konstruktoren und Destruktoren	24
		6.4.2.1	GraphElement	24
	6.4.3	Dokumen	tation der Elementfunktionen	24
		6.4.3.1	AddAttribute	24
		6.4.3.2	GetAttributeByName	24
		6.4.3.3	RemoveAttribute	25
		6.4.3.4	RemoveAttribute	25
	6.4.4	Dokumen	tation der Datenelemente	25
		6.4.4.1	mAttributes	25
	6.4.5	Dokumen	tation der Propertys	25
		6.4.5.1	Attributes	25
6.5	GraphF	ramework	Interfaces.IAttribute Schnittstellenreferenz	25
	6.5.1	Ausführlic	che Beschreibung	26
	6.5.2	Dokumen	tation der Propertys	26
		6.5.2.1	Name	26
		6.5.2.2	Type	26
		6.5.2.3	Value	26
6.6	GraphF	ramework	Interfaces.IEdge Schnittstellenreferenz	27
	6.6.1		che Beschreibung	28
	6.6.2	Dokumen	tation der Propertys	28

INHALTSVERZEICHNIS v

		6.6.2.1	Node1	28
		6.6.2.2	Node2	28
6.7	GraphF	ramework		28
	6.7.1	Ausführlic	che Beschreibung	29
	6.7.2	Dokumer	ntation der Elementfunktionen	30
		6.7.2.1	AddEdge	30
		6.7.2.2	AddEdge	31
		6.7.2.3	AddGraph	31
		6.7.2.4	AddGraph	31
		6.7.2.5	AddNode	31
		6.7.2.6	GetEdges	32
		6.7.2.7	GetSingleNodes	32
		6.7.2.8	RemoveEdge	32
		6.7.2.9	RemoveNode	32
	6.7.3	Dokumer	ntation der Propertys	32
		6.7.3.1	Edges	32
		6.7.3.2	Nodes	33
6.8	GraphF	ramework		33
	6.8.1	Ausführlic	che Beschreibung	33
	6.8.2	Dokumer	ntation der Elementfunktionen	34
		6.8.2.1	AddAttribute	34
		6.8.2.2	GetAttributeByName	35
		6.8.2.3	RemoveAttribute	35
		6.8.2.4	RemoveAttribute	35
	6.8.3	Dokumer	ntation der Propertys	35
		6.8.3.1	Attributes	35
6.9	GraphF	ramework	Interfaces.INode Schnittstellenreferenz	35
	6.9.1	Ausführlic	che Beschreibung	36
6.10	GraphF	ramework	Node Klassenreferenz	36
	6.10.1	Ausführlic	che Beschreibung	37
	6.10.2	Beschreit	oung der Konstruktoren und Destruktoren	38
		6.10.2.1	Node	38
Data	: Dalaun			20
		nentation		39
7.1			referenz	39
7.2			erenz	39
7.3			ferenz	39
7.4	•		-Dateireferenz	40
7.5			Ite.cs-Dateireferenz	40
7.6	Interfac	es/IEdge.	cs-Dateireferenz	40

7

Index		43
7.	11 Properties/AssemblyInfo.cs-Dateireferenz	41
7.	10 Node.cs-Dateireferenz	41
7.9	9 Interfaces/INode.cs-Dateireferenz	41
7.8	8 Interfaces/IGraphElement.cs-Dateireferenz	41
7.7	7 Interfaces/IGraph.cs-Dateireferenz	40

Kapitel 1

Verzeichnis der Namensbereiche

4	4	Pa	l,	~ +	_
-		-7	DK (-1	_

Hier folgen die Pakete mit einer Kurzbeschreibung (wenn verfügbar):							
GraphFramework							ç
GraphFramework.Interfaces							9

2	Verzeichnis der Namensbereiche

Kapitel 2

Hierarchie-Verzeichnis

2.1 Klassenhierarchie

Die Liste der	Ableitungen ist	:-mit Einsc	hränkungen-	alphabetisch	sortiert:

raphFramework.Interfaces.IAttribute	25
GraphFramework.Attribute	11
raphFramework.Interfaces.IGraphElement	33
GraphFramework.GraphElement	23
GraphFramework.Edge	12
GraphFramework.Graph	14
GraphFramework.Node	36
GraphFramework.Interfaces.IEdge	27
GraphFramework.Edge	12
GraphFramework.Interfaces.IGraph	28
GraphFramework.Graph	14
GraphFramework.Interfaces.INode	35
GraphFramework.Node	36

Hierarchie-Verzeichnis

Kapitel 3

Klassen-Verzeichnis

3.1 Auflistung der Klassen

Hier folgt die Aufzählung aller Klassen, Strukturen, Varianten und Schnittstellen mit einer Kurzbeschreibung:	
GraphFramework.Attribute	
The attribute class. A attribute is a holder of a generic value which has a name	- 11
GraphFramework.Edge	
The edge class	12
GraphFramework.Graph	
the graph class: holder of edges and nodes + methods to modify the graph	14
GraphFramework.GraphElement	
the abstract graphelement class nearly every framework class inherits from. The class generalize	
the relation between classes that can have attributes and the attribute class	23
GraphFramework.Interfaces.IAttribute	
An interface for classes that contain a value that has a name. Objects of classes that implement	
this interface can be added to objects of classes that implement the interface IGraphElement	25
GraphFramework.Interfaces.IEdge	
An interface for classes that are able to connect two objects of a class that implements the	
interface INode. Objects of classes that implement this interface can be added to objects of	0-
classes that implement the interface IGraph.	27
GraphFramework.Interfaces.IGraph	
Classes that implement this interface are a representation of a set of objects that implement the interfaces INode and IEdge and the relations between them. It is able to perform actions on this	
objects	28
GraphFramework.Interfaces.IGraphElement	
An interface for classes that are able to hold objects of classes that implement the interface	
IAttribute. The interfaces INode, IEdge and IGraph inherit from this interface	33
GraphFramework.Interfaces.INode	
An interface for a class that is able to hold objects of a class that implements the interface $\vdash \leftarrow$	
Attribute. Objects of classes that implement this interface can be added to objects of classes that	
implement the interface IGraph.	35
GraphFramework.Node	
Node class	- 36

6 Klassen-Verzeichnis

Kapitel 4

Datei-Verzeichnis

4.1 Auflistung der Dateien

Hier folgt die Aufzählung aller Dateien mit einer Kurzbeschreibung:

Attribute.cs	39
Edge.cs	
Graph.cs	39
GraphElement.cs	
Node.cs	41
Interfaces/IAttribute.cs	40
Interfaces/IEdge.cs	
Interfaces/IGraph.cs	40
Interfaces/IGraphElement.cs	
Interfaces/INode.cs	41
Properties/AssemblyInfo.cs	41

8 Datei-Verzeichnis

Kapitel 5

Dokumentation der Namensbereiche

5.1 Paket GraphFramework

Namensbereiche

· package Interfaces

Klassen

· class Attribute

The attribute class. A attribute is a holder of a generic value which has a name

class Edge

The edge class

class Graph

the graph class: holder of edges and nodes + methods to modify the graph

· class GraphElement

the abstract graphelement class nearly every framework class inherits from. The class generalize the relation between classes that can have attributes and the attribute class

class Node

Node class

5.2 Paket GraphFramework.Interfaces

Klassen

· interface IAttribute

An interface for classes that contain a value that has a name. Objects of classes that implement this interface can be added to objects of classes that implement the interface IGraphElement.

· interface IEdge

An interface for classes that are able to connect two objects of a class that implements the interface INode. Objects of classes that implement this interface can be added to objects of classes that implement the interface IGraph.

· interface IGraph

Classes that implement this interface are a representation of a set of objects that implement the interfaces INode and IEdge and the relations between them. It is able to perform actions on this objects.

• interface IGraphElement

An interface for classes that are able to hold objects of classes that implement the interface IAttribute. The interfaces INode, IEdge and IGraph inherit from this interface.

• interface INode

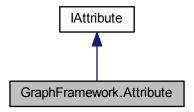
An interface for a class that is able to hold objects of a class that implements the interface IAttribute. Objects of classes that implement this interface can be added to objects of classes that implement the interface IGraph.

Kapitel 6

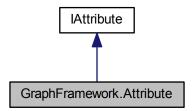
Klassen-Dokumentation

6.1 GraphFramework.Attribute Klassenreferenz

The attribute class. A attribute is a holder of a generic value which has a name Klassendiagramm für GraphFramework.Attribute:



Zusammengehörigkeiten von GraphFramework.Attribute:



Öffentliche Methoden

• Attribute (string name, object val)

attribute constructor

Propertys

```
• object Value [get, set]
```

Gets and sets the value of the attribute

• Type Type [get]

Gets the type of the attribute

• string Name [get]

Gets the name of the attribute

6.1.1 Ausführliche Beschreibung

The attribute class. A attribute is a holder of a generic value which has a name

6.1.2 Beschreibung der Konstruktoren und Destruktoren

6.1.2.1 GraphFramework.Attribute.Attribute (string name, object val)

attribute constructor

Parameter

name	the name
val	the generic value

6.1.3 Dokumentation der Propertys

6.1.3.1 string GraphFramework.Attribute.Name [get]

Gets the name of the attribute

6.1.3.2 Type GraphFramework.Attribute.Type [get]

Gets the type of the attribute

6.1.3.3 object GraphFramework.Attribute.Value [get], [set]

Gets and sets the value of the attribute

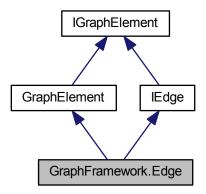
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• Attribute.cs

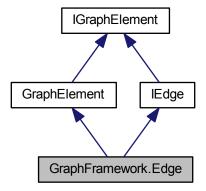
6.2 GraphFramework.Edge Klassenreferenz

The edge class

Klassendiagramm für GraphFramework.Edge:



Zusammengehörigkeiten von GraphFramework. Edge:



Paketfunktionen

• Edge (INode node1, INode node2, params IAttribute[] attributes)

Add also attributes to the edge

Propertys

• INode Node1 [get]

The first node the edge connects

• INode Node2 [get]

The second node the edge connects

Weitere	Geerbte	Elemente
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6.2.1 Ausführliche Beschreibung

The edge class

6.2.2 Beschreibung der Konstruktoren und Destruktoren

6.2.2.1 GraphFramework.Edge.Edge (INode node1, INode node2, params IAttribute[] attributes) [package]

Add also attributes to the edge

Parameter

node1	first node
node2	second node
attributes	

6.2.3 Dokumentation der Propertys

6.2.3.1 INode GraphFramework.Edge.Node1 [get]

The first node the edge connects

6.2.3.2 INode GraphFramework.Edge.Node2 [get]

The second node the edge connects

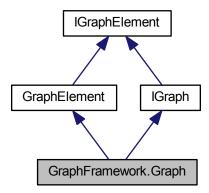
Die Dokumentation für diese Klasse wurde erzeugt aufgrund der Datei:

• Edge.cs

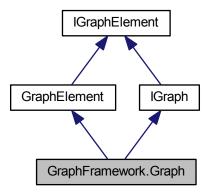
6.3 GraphFramework.Graph Klassenreferenz

the graph class: holder of edges and nodes + methods to modify the graph

Klassendiagramm für GraphFramework.Graph:



Zusammengehörigkeiten von GraphFramework.Graph:



Öffentliche Methoden

- Graph (params IAttribute[] attributes)
 creates a new graph with the given parameters
- void AddNode (INode node)

adds the node to the node collection of the graph

- void RemoveNode (params INode[] nodesToRemove)
 - removes the nodes identified by its reference from the graph
- void AddEdge (INode node1, INode node2, params IAttribute[] attributes)
 adds the edge to the edge collection of the graph
- void AddEdge (IEdge edge)

adds the edge to the edge collection of the graph

• void RemoveEdge (params IEdge[] edgesToRemove)

removes the edge identified by its reference from the graph

• IEnumerable < INode > GetSingleNodes ()

returns all Nodes that are not connected by Edges

void AddGraph (IGraph graphToAdd)

adds one Graph object to this graph

void AddGraph (IGraph graphToAdd, INode thisGraphConnectionNode, INode graphToAddConnectionNode, params IAttribute[] attributes)

adds one Graph object to this graph and connects it with an edge

IEnumerable < IEdge > GetEdges (INode node1, INode node2)

gets the edges which are connected to the nodes node1 and node2

Öffentliche, statische Methoden

• static IGraph MergeGraphs (IGraph graph1, IGraph graph2)

merges the two graphs to one new

static IGraph MergeGraphs (IGraph graph1, IGraph graph2, INode graphOneConnectionNode, INode graph
 — TwoConnectionNode, params IAttribute[] attributes)

merges the two graphs to one new and connects the two given nodes

Propertys

• IEnumerable < INode > Nodes [get]

contains all nodes

• IEnumerable < IEdge > Edges [get]

contains all edges

Weitere Geerbte Elemente

6.3.1 Ausführliche Beschreibung

the graph class: holder of edges and nodes + methods to modify the graph

6.3.2 Beschreibung der Konstruktoren und Destruktoren

6.3.2.1 GraphFramework.Graph.Graph (params IAttribute[] attributes)

creates a new graph with the given parameters

Parameter

attributes attributes to add to the graph

Hier ist ein Graph der zeigt, wo diese Funktion aufgerufen wird:



- 6.3.3 Dokumentation der Elementfunktionen
- 6.3.3.1 void GraphFramework.Graph.AddEdge (INode node1, INode node2, params IAttribute[] attributes) adds the edge to the edge collection of the graph

Parameter

node1	first node to which the edge is connected
node2	second node to which the edge is connected
attributes	attributes of the edge

Implementiert GraphFramework.Interfaces.IGraph.

Hier ist ein Graph der zeigt, wo diese Funktion aufgerufen wird:



6.3.3.2 void GraphFramework.Graph.AddEdge (IEdge edge)

adds the edge to the edge collection of the graph

Parameter

edge	edge to add to graph

Implementiert GraphFramework.Interfaces.IGraph.

Hier ist ein Graph, der zeigt, was diese Funktion aufruft:



6.3.3.3 void GraphFramework.Graph.AddGraph (IGraph graphToAdd)

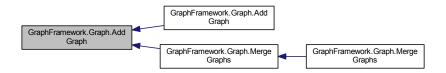
adds one Graph object to this graph

Parameter

graphToAdd	Graph object that will be added to this

Implementiert GraphFramework.Interfaces.IGraph.

Hier ist ein Graph der zeigt, wo diese Funktion aufgerufen wird:



6.3.3.4 void GraphFramework.Graph.AddGraph (IGraph graphToAdd, INode thisGraphConnectionNode, INode graphToAddConnectionNode, params IAttribute[] attributes)

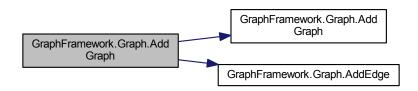
adds one Graph object to this graph and connects it with an edge

Parameter

graphToAdd	Graph object that will be added to this
thisGraph⊷	first Node for new Edge. Contained in graph 1.
ConnectionNode	
graphToAdd↔	second Node for new Edge. Contained in graph 2.
ConnectionNode	
attributes	Attributes of new Edge

Implementiert GraphFramework.Interfaces.IGraph.

Hier ist ein Graph, der zeigt, was diese Funktion aufruft:



6.3.3.5 void GraphFramework.Graph.AddNode (INode node)

adds the node to the node collection of the graph

Parameter

node	reference of the node to add

Implementiert GraphFramework.Interfaces.IGraph.

Hier ist ein Graph der zeigt, wo diese Funktion aufgerufen wird:



6.3.3.6 | IEnumerable < IEdge > GraphFramework.Graph.GetEdges (INode node1, INode node2)

gets the edges which are connected to the nodes node1 and node2

Parameter

node1	first node to which the edge has to be connected
node2	second node to which the edge has to be connected

Rückgabe

all the edges which connect the nodes node1 and node2

Implementiert GraphFramework.Interfaces.IGraph.

6.3.3.7 IEnumerable < INode > GraphFramework.Graph.GetSingleNodes ()

returns all Nodes that are not connected by Edges

Rückgabe

returns all single Nodes

Implementiert GraphFramework.Interfaces.IGraph.

6.3.3.8 static | Graph GraphFramework.Graph.MergeGraphs (| IGraph graph1, | IGraph graph2) [static]

merges the two graphs to one new

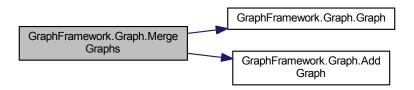
Parameter

graph1	first graph
graph2	second graph

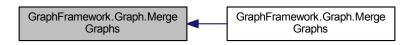
Rückgabe

the new graph, which contains the given two

Hier ist ein Graph, der zeigt, was diese Funktion aufruft:



Hier ist ein Graph der zeigt, wo diese Funktion aufgerufen wird:



6.3.3.9 static IGraph GraphFramework.Graph.MergeGraphs (IGraph graph1, IGraph graph2, INode graphOneConnectionNode, INode graphTwoConnectionNode, params IAttribute[] attributes) [static]

merges the two graphs to one new and connects the two given nodes

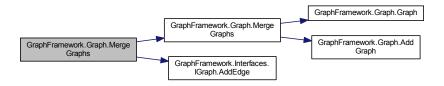
Parameter

graph1	first graph
graph2	second graph
graphOne←	node in graph one to connect with node in graph two
ConnectionNode	
graphTwo←	node in graph two to connect with node in graph one
ConnectionNode	
attributes	attributes to add to the edge between graphOneConnectionNode and graphTwoConnection←
	Node

Rückgabe

the new graph, which contains the given two and a edge between the given nodes

Hier ist ein Graph, der zeigt, was diese Funktion aufruft:



$6.3.3.10 \quad \text{void GraphFramework.Graph.RemoveEdge (} \ \ \text{params IEdge[]} \ \ \textit{edgesToRemove} \ \ \text{)}$

removes the edge identified by its reference from the graph

Parameter

edgesToRemove	reference of the edges to remove

Implementiert GraphFramework.Interfaces.IGraph.

Hier ist ein Graph der zeigt, wo diese Funktion aufgerufen wird:



6.3.3.11 void GraphFramework.Graph.RemoveNode (params INode[] nodesToRemove)

removes the nodes identified by its reference from the graph

Parameter



Implementiert GraphFramework.Interfaces.IGraph.

Hier ist ein Graph, der zeigt, was diese Funktion aufruft:



6.3.4 Dokumentation der Propertys

6.3.4.1 IEnumerable < IEdge > GraphFramework.Graph.Edges [get]

contains all edges

6.3.4.2 IEnumerable < INode > GraphFramework.Graph.Nodes [get]

contains all nodes

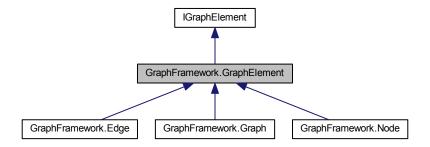
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· Graph.cs

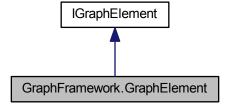
6.4 GraphFramework.GraphElement Klassenreferenz

the abstract graphelement class nearly every framework class inherits from. The class generalize the relation between classes that can have attributes and the attribute class

Klassendiagramm für GraphFramework.GraphElement:



Zusammengehörigkeiten von GraphFramework.GraphElement:



Öffentliche Methoden

void AddAttribute (IAttribute attribute)

Adds an attribute to the node. If the element allready has and attribute with this name, it is not added

void RemoveAttribute (string nameOfAttributeToRemove)

Removes an attribute with the defined name from the element. (if the element has an attribute with this name)

void RemoveAttribute (IAttribute attributeToRemove)

Removes the defined attribute if the element holds it

IAttribute GetAttributeByName (string name)

Returns the attribute with the given name. Warning: can be also null

Geschützte Methoden

GraphElement (params | Attribute[] attributes)

Special constructor which adds multiple attributes to the element

Geschützte Attribute

• List< IAttribute > mAttributes

The attributes of the element, sorted by their names

Propertys

• IEnumerable < IAttribute > Attributes [get]

Gets the element's attributes as a collection

6.4.1 Ausführliche Beschreibung

the abstract graphelement class nearly every framework class inherits from. The class generalize the relation between classes that can have attributes and the attribute class

6.4.2 Beschreibung der Konstruktoren und Destruktoren

6.4.2.1 GraphFramework.GraphElement.GraphElement(params | Attribute[] attributes) [protected]

Special constructor which adds multiple attributes to the element

Parameter

Parameter

attributes the attributes you want to add

6.4.3 Dokumentation der Elementfunktionen

6.4.3.1 void GraphFramework.GraphElement.AddAttribute (IAttribute attribute)

Adds an attribute to the node. If the element allready has and attribute with this name, it is not added

attribute the attribute you want to add

 $Implementiert\ Graph Framework. Interfaces. IGraph Element.$

6.4.3.2 IAttribute GraphFramework.GraphElement.GetAttributeByName (string name)

Returns the attribute with the given name. Warning: can be also null

Parameter

name

Rückgabe

null or the attribute with the given name

Implementiert GraphFramework.Interfaces.IGraphElement.

6.4.3.3 void GraphFramework.GraphElement.RemoveAttribute (string nameOfAttributeToRemove)

Removes an attribute with the defined name from the element. (if the element has an attribute with this name)

Parameter

nameOf⊷	the name of the attribute you want to remove
AttributeTo⊷	
Remove	

Implementiert GraphFramework.Interfaces.IGraphElement.

6.4.3.4 void GraphFramework.GraphElement.RemoveAttribute (IAttribute attributeToRemove)

Removes the defined attribute if the element holds it

Parameter

attributeTo↔ Remove

Implementiert GraphFramework.Interfaces.IGraphElement.

6.4.4 Dokumentation der Datenelemente

6.4.4.1 List<IAttribute> GraphFramework.GraphElement.mAttributes [protected]

The attributes of the element, sorted by their names

6.4.5 Dokumentation der Propertys

6.4.5.1 IEnumerable < IAttribute > GraphFramework.GraphElement.Attributes [get]

Gets the element's attributes as a collection

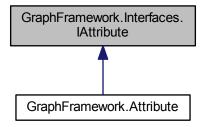
Die Dokumentation für diese Klasse wurde erzeugt aufgrund der Datei:

· GraphElement.cs

6.5 GraphFramework.Interfaces.IAttribute Schnittstellenreferenz

An interface for classes that contain a value that has a name. Objects of classes that implement this interface can be added to objects of classes that implement the interface IGraphElement.

Klassendiagramm für GraphFramework.Interfaces.IAttribute:



Propertys

- object Value [get, set]
 - Value of the IAttribute.
- Type Type [get]

Type of the property Value of the IAttribute.

• string Name [get]

Name to identify the IAttribute.

6.5.1 Ausführliche Beschreibung

An interface for classes that contain a value that has a name. Objects of classes that implement this interface can be added to objects of classes that implement the interface IGraphElement.

6.5.2 Dokumentation der Propertys

 $\textbf{6.5.2.1} \quad \textbf{string GraphFramework.Interfaces.IAttribute.Name} \quad [\, \texttt{get} \,]$

Name to identify the IAttribute.

6.5.2.2 Type GraphFramework.Interfaces.IAttribute.Type [get]

Type of the property Value of the IAttribute.

6.5.2.3 object GraphFramework.Interfaces.IAttribute.Value [get], [set]

Value of the IAttribute.

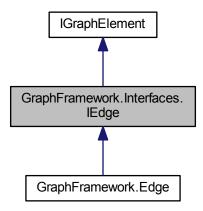
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• Interfaces/IAttribute.cs

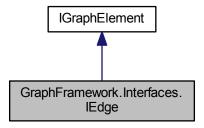
6.6 GraphFramework.Interfaces.IEdge Schnittstellenreferenz

An interface for classes that are able to connect two objects of a class that implements the interface INode. Objects of classes that implement this interface can be added to objects of classes that implement the interface IGraph.

Klassendiagramm für GraphFramework.Interfaces.IEdge:



Zusammengehörigkeiten von GraphFramework.Interfaces.IEdge:



Propertys

• INode Node1 [get]

The first INode to which the IEdge is connected.

• INode Node2 [get]

The second INode to which the IEdge is connected.

Weitere Geerbte Elemente

6.6.1 Ausführliche Beschreibung

An interface for classes that are able to connect two objects of a class that implements the interface INode. Objects of classes that implement this interface can be added to objects of classes that implement the interface IGraph.

6.6.2 Dokumentation der Propertys

6.6.2.1 INode GraphFramework.Interfaces.IEdge.Node1 [get]

The first INode to which the IEdge is connected.

6.6.2.2 INode GraphFramework.Interfaces.IEdge.Node2 [get]

The second INode to which the IEdge is connected.

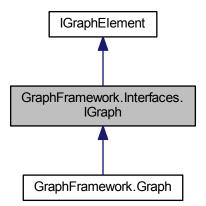
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Interfaces/IEdge.cs

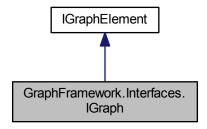
6.7 GraphFramework.Interfaces.IGraph Schnittstellenreferenz

Classes that implement this interface are a representation of a set of objects that implement the interfaces INode and IEdge and the relations between them. It is able to perform actions on this objects.

Klassendiagramm für GraphFramework.Interfaces.IGraph:



Zusammengehörigkeiten von GraphFramework.Interfaces.IGraph:



Öffentliche Methoden

void AddNode (INode node)

Adds the INode to property Nodes of the IGraph.

void RemoveNode (params INode[] nodesToRemove)

Removes the INode from the property Nodes of the IGraph.

• void AddEdge (INode node1, INode node2, params IAttribute[] attributes)

Adds a new IEdge to the property Edges of the IGraph.

• void AddEdge (IEdge edge)

Adds the IEdge edge to the property Edges of the IGraph.

void RemoveEdge (params IEdge[] edgesToRemove)

Removes the IEdge from the property Edges of the IGraph.

• IEnumerable < INode > GetSingleNodes ()

Returns all INode objects of this IGraph that are not connected by any IEdges.

void AddGraph (IGraph graphToAdd)

Adds one IGraph object to this IGraph.

void AddGraph (IGraph graphToAdd, INode thisGraphConnectionNode, INode graphToAddConnectionNode, params IAttribute[] attributes)

Adds one IGraph object to this IGraph and connects it with an IEdge.

IEnumerable < IEdge > GetEdges (INode node1, INode node2)

Gets the IEdge objects which are connected to the INode obejcts node1 and node2.

Propertys

• IEnumerable < INode > Nodes [get]

Contains all INode objects that are part of the IGraph.

• IEnumerable < IEdge > Edges [get]

Contains all IEdge objects that are part of the IGraph.

6.7.1 Ausführliche Beschreibung

Classes that implement this interface are a representation of a set of objects that implement the interfaces INode and IEdge and the relations between them. It is able to perform actions on this objects.

6.7.2 Dokumentation der Flementfu	funkt	ionen
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6.7.2.1 void GraphFramework.Interfaces.IGraph.AddEdge (INode node1, INode node2, params IAttribute[] attributes)

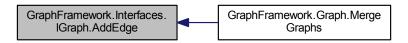
Adds a new IEdge to the property Edges of the IGraph.

Parameter

node1	first INode to which the IEdge is connected
node2	second INode to which the IEdge is connected
attributes	IAttribute objects of the IEdge

Implementiert in GraphFramework.Graph.

Hier ist ein Graph der zeigt, wo diese Funktion aufgerufen wird:



6.7.2.2 void GraphFramework.Interfaces.IGraph.AddEdge (IEdge edge)

Adds the IEdge edge to the property Edges of the IGraph.

Parameter

edge	IEdge to add to IGraph

Implementiert in GraphFramework.Graph.

6.7.2.3 void GraphFramework.Interfaces.IGraph.AddGraph (IGraph graphToAdd)

Adds one IGraph object to this IGraph.

Parameter

graphToAdd	IGraph object that will be added to this

Implementiert in GraphFramework.Graph.

6.7.2.4 void GraphFramework.Interfaces.IGraph.AddGraph (IGraph graphToAdd, INode thisGraphConnectionNode, INode graphToAddConnectionNode, params IAttribute[] attributes)

Adds one IGraph object to this IGraph and connects it with an IEdge.

Parameter

graphToAdd	IGraph object that will be added to this
thisGraph⇔	first INode for new IEdge
ConnectionNode	
graphToAdd↔	second INode for new IEdge
ConnectionNode	
attributes	IAttribute objects of new IEdge

Implementiert in GraphFramework.Graph.

6.7.2.5 void GraphFramework.Interfaces.IGraph.AddNode (INode node)

Adds the INode to property Nodes of the IGraph.

Parameter

node	reference of the INode to add
------	-------------------------------

Implementiert in GraphFramework.Graph.

6.7.2.6 | IEnumerable < IEdge > GraphFramework.Interfaces.IGraph.GetEdges (INode node1, INode node2)

Gets the IEdge objects which are connected to the INode obejcts node1 and node2.

Parameter

node1	first INode to which the IEdge has to be connected
node2	second INode to which the IEdge has to be connected

Rückgabe

all the IEdge objects which connect the INode objects node1 and node2

Implementiert in GraphFramework.Graph.

6.7.2.7 IEnumerable < INode > GraphFramework.Interfaces.IGraph.GetSingleNodes ()

Returns all INode objects of this IGraph that are not connected by any IEdges.

Rückgabe

returns all single INode objects

Implementiert in GraphFramework.Graph.

6.7.2.8 void GraphFramework.Interfaces.IGraph.RemoveEdge (params IEdge[] edgesToRemove)

Removes the IEdge from the property Edges of the IGraph.

Parameter

edgesToRemove	reference of the IEdge objects to remove

Implementiert in GraphFramework.Graph.

6.7.2.9 void GraphFramework.Interfaces.IGraph.RemoveNode (params INode[] nodesToRemove)

Removes the INode from the property Nodes of the IGraph.

Parameter

nodesToRemove	reference of the INode objects to remove
---------------	--

Implementiert in GraphFramework.Graph.

6.7.3 Dokumentation der Propertys

6.7.3.1 IEnumerable < IEdge > GraphFramework.Interfaces.IGraph.Edges [get]

Contains all IEdge objects that are part of the IGraph.

6.7.3.2 IEnumerable < INode > GraphFramework.Interfaces.IGraph.Nodes [get]

Contains all INode objects that are part of the IGraph.

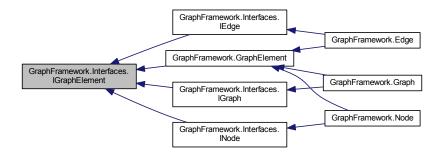
Die Dokumentation für diese Schnittstelle wurde erzeugt aufgrund der Datei:

• Interfaces/IGraph.cs

6.8 GraphFramework.Interfaces.IGraphElement Schnittstellenreferenz

An interface for classes that are able to hold objects of classes that implement the interface IAttribute. The interfaces INode, IEdge and IGraph inherit from this interface.

Klassendiagramm für GraphFramework.Interfaces.IGraphElement:



Öffentliche Methoden

· void AddAttribute (IAttribute attribute)

Adds the IAttribute to the property Attributes of the IGraphElement.

void RemoveAttribute (string nameOfAttributeToRemove)

Removes the lAttribute identified by its name from the property Attributes.

· void RemoveAttribute (IAttribute attributeToRemove)

Removes the IAttribute from the property Attributes.

IAttribute GetAttributeByName (string name)

Returns the attribute with the given name. Warning: can be also null

Propertys

• IEnumerable < IAttribute > Attributes [get]

Contains all IAttribute objects of the IGraphElement.

6.8.1 Ausführliche Beschreibung

An interface for classes that are able to hold objects of classes that implement the interface IAttribute. The interfaces INode, IEdge and IGraph inherit from this interface.

- 6.8.2 Dokumentation der Elementfunktionen
- $6.8.2.1 \quad \text{void GraphFramework.Interfaces.IGraphElement.AddAttribute (} \ \ \textbf{IAttribute} \ \ \textbf{attribute} \ \ \textbf{)}$

Adds the IAttribute to the property Attributes of the IGraphElement.

Parameter

attribute reference of the IAttribute to add to the property Attributes

Implementiert in GraphFramework.GraphElement.

6.8.2.2 IAttribute GraphFramework.Interfaces.IGraphElement.GetAttributeByName (string name)

Returns the attribute with the given name. Warning: can be also null

Parameter

name

Rückgabe

null or the attribute with the given name

Implementiert in GraphFramework.GraphElement.

6.8.2.3 void GraphFramework.Interfaces.IGraphElement.RemoveAttribute (string nameOfAttributeToRemove)

Removes the lAttribute identified by its name from the property Attributes.

Parameter

nameOf⊷	property Name of the IAttribute to remove
AttributeTo⊷	
Remove	

Implementiert in GraphFramework.GraphElement.

6.8.2.4 void GraphFramework.Interfaces.IGraphElement.RemoveAttribute (IAttribute attributeToRemove)

Removes the lAttribute from the property Attributes.

Parameter

attributeTo⇔	reference of the IAttribute to remove
Remove	

Implementiert in GraphFramework.GraphElement.

6.8.3 Dokumentation der Propertys

6.8.3.1 IEnumerable < IAttribute > GraphFramework.Interfaces.IGraphElement.Attributes [get]

Contains all IAttribute objects of the IGraphElement.

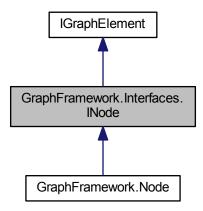
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• Interfaces/IGraphElement.cs

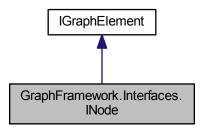
6.9 GraphFramework.Interfaces.INode Schnittstellenreferenz

An interface for a class that is able to hold objects of a class that implements the interface IAttribute. Objects of classes that implement this interface can be added to objects of classes that implement the interface IGraph.

Klassendiagramm für GraphFramework.Interfaces.INode:



Zusammengehörigkeiten von GraphFramework.Interfaces.INode:



Weitere Geerbte Elemente

6.9.1 Ausführliche Beschreibung

An interface for a class that is able to hold objects of a class that implements the interface IAttribute. Objects of classes that implement this interface can be added to objects of classes that implement the interface IGraph.

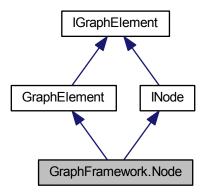
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Interfaces/INode.cs

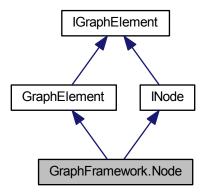
6.10 GraphFramework.Node Klassenreferenz

Node class

Klassendiagramm für GraphFramework.Node:



Zusammengehörigkeiten von GraphFramework.Node:



Öffentliche Methoden

• Node (params IAttribute[] attributes)

Adds also attributes to the node

Weitere Geerbte Elemente

6.10.1 Ausführliche Beschreibung

Node class

6.10.2 Beschreibung der Konstruktoren und Destruktoren

6.10.2.1 GraphFramework.Node.Node (params IAttribute[] attributes)

Adds also attributes to the node

Parameter

attributes	the attributes you want to add
aแบบแบง	I THE ATTIBUTES YOU WATE TO AUG
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Die Dokumentation für diese Klasse wurde erzeugt aufgrund der Datei:

• Node.cs

Kapitel 7

Datei-Dokumentation

7.1 Attribute.cs-Dateireferenz

Klassen

• class GraphFramework.Attribute

The attribute class. A attribute is a holder of a generic value which has a name

Namensbereiche

package GraphFramework

7.2 Edge.cs-Dateireferenz

Klassen

· class GraphFramework.Edge

The edge class

Namensbereiche

• package GraphFramework

7.3 Graph.cs-Dateireferenz

Klassen

• class GraphFramework.Graph

the graph class: holder of edges and nodes + methods to modify the graph

Namensbereiche

• package GraphFramework

40 Datei-Dokumentation

7.4 GraphElement.cs-Dateireferenz

Klassen

· class GraphFramework.GraphElement

the abstract graphelement class nearly every framework class inherits from. The class generalize the relation between classes that can have attributes and the attribute class

Namensbereiche

· package GraphFramework

7.5 Interfaces/IAttribute.cs-Dateireferenz

Klassen

• interface GraphFramework.Interfaces.IAttribute

Namensbereiche

· package GraphFramework.Interfaces

7.6 Interfaces/IEdge.cs-Dateireferenz

Klassen

· interface GraphFramework.Interfaces.IEdge

An interface for classes that are able to connect two objects of a class that implements the interface INode. Objects of classes that implement this interface can be added to objects of classes that implement the interface IGraph.

Namensbereiche

• package GraphFramework.Interfaces

7.7 Interfaces/IGraph.cs-Dateireferenz

Klassen

interface GraphFramework.Interfaces.IGraph

Classes that implement this interface are a representation of a set of objects that implement the interfaces INode and IEdge and the relations between them. It is able to perform actions on this objects.

Namensbereiche

• package GraphFramework.Interfaces

7.8 Interfaces/IGraphElement.cs-Dateireferenz

Klassen

· interface GraphFramework.Interfaces.IGraphElement

An interface for classes that are able to hold objects of classes that implement the interface IAttribute. The interfaces INode, IEdge and IGraph inherit from this interface.

Namensbereiche

· package GraphFramework.Interfaces

7.9 Interfaces/INode.cs-Dateireferenz

Klassen

interface GraphFramework.Interfaces.INode

An interface for a class that is able to hold objects of a class that implements the interface IAttribute. Objects of classes that implement this interface can be added to objects of classes that implement the interface IGraph.

Namensbereiche

· package GraphFramework.Interfaces

7.10 Node.cs-Dateireferenz

Klassen

class GraphFramework.Node
 Node class

Namensbereiche

• package GraphFramework

7.11 Properties/AssemblyInfo.cs-Dateireferenz

42 **Datei-Dokumentation**

Index

AddAttribute	GraphFramework.Interfaces.IGraphElement, 33
GraphFramework::GraphElement, 24	GraphFramework.Interfaces.INode, 35
GraphFramework::Interfaces::IGraphElement, 34	GraphFramework.Node, 36
AddEdge	GraphFramework::Attribute
GraphFramework::Graph, 17, 18	Attribute, 12
GraphFramework::Interfaces::IGraph, 30, 31	Name, 12
AddGraph	Type, 12
GraphFramework::Graph, 18, 19	Value, 12
GraphFramework::Interfaces::IGraph, 31	GraphFramework::Edge
AddNode	Edge, 14
GraphFramework::Graph, 19	Node1, 14
GraphFramework::Interfaces::IGraph, 31	Node2, 14
Attribute	GraphFramework::Graph
GraphFramework::Attribute, 12	AddEdge, 17, 18
Attribute.cs, 39	AddGraph, 18, 19
Attributes	AddNode, 19
GraphFramework::GraphElement, 25	Edges, 23
GraphFramework::Interfaces::IGraphElement, 35	GetEdges, 20
	GetSingleNodes, 20
Edge	Graph, 16
GraphFramework::Edge, 14	•
Edge.cs, 39	MergeGraphs, 20, 21
Edges	Nodes, 23
GraphFramework::Graph, 23	RemoveEdge, 22
GraphFramework::Interfaces::IGraph, 32	RemoveNode, 22
	GraphFramework::GraphElement
GetAttributeByName	AddAttribute, 24
GraphFramework::GraphElement, 24	Attributes, 25
GraphFramework::Interfaces::IGraphElement, 35	GetAttributeByName, 24
GetEdges	GraphElement, 24
GraphFramework::Graph, 20	mAttributes, 25
GraphFramework::Interfaces::IGraph, 32	RemoveAttribute, 25
GetSingleNodes	GraphFramework::Interfaces::IAttribute
GraphFramework::Graph, 20	Name, 26
GraphFramework::Interfaces::IGraph, 32	Type, 26
Graph	Value, 26
GraphFramework::Graph, 16	GraphFramework::Interfaces::IEdge
Graph.cs, 39	Node1, 28
GraphElement	Node2, 28
GraphFramework::GraphElement, 24	GraphFramework::Interfaces::IGraph
GraphElement.cs, 40	AddEdge, 30, 31
GraphFramework, 9	AddGraph, 31
GraphFramework.Attribute, 11	AddNode, 31
GraphFramework.Edge, 12	Edges, 32
GraphFramework.Graph, 14	GetEdges, 32
GraphFramework.GraphElement, 23	GetSingleNodes, 32
GraphFramework.Interfaces, 9	Nodes, 32
GraphFramework.Interfaces.IAttribute, 25	RemoveEdge, 32
GraphFramework.Interfaces.IEdge, 27	RemoveNode, 32
GraphFramework.Interfaces.IGraph, 28	GraphFramework::Interfaces::IGraphElement

44 INDEX

```
AddAttribute, 34
    Attributes, 35
    GetAttributeByName, 35
    RemoveAttribute, 35
GraphFramework::Node
    Node, 38
Interfaces/IAttribute.cs, 40
Interfaces/IEdge.cs, 40
Interfaces/IGraph.cs, 40
Interfaces/IGraphElement.cs, 41
Interfaces/INode.cs, 41
mAttributes
    GraphFramework::GraphElement, 25
MergeGraphs
    GraphFramework::Graph, 20, 21
Name
    GraphFramework::Attribute, 12
    GraphFramework::Interfaces::IAttribute, 26
    GraphFramework::Node, 38
Node.cs, 41
Node1
    GraphFramework::Edge, 14
    GraphFramework::Interfaces::IEdge, 28
Node2
    GraphFramework::Edge, 14
    GraphFramework::Interfaces::IEdge, 28
Nodes
    GraphFramework::Graph, 23
    GraphFramework::Interfaces::IGraph, 32
Properties/AssemblyInfo.cs, 41
RemoveAttribute
    GraphFramework::GraphElement, 25
    GraphFramework::Interfaces::IGraphElement, 35
RemoveEdge
    GraphFramework::Graph, 22
    GraphFramework::Interfaces::IGraph, 32
RemoveNode
    GraphFramework::Graph, 22
    GraphFramework::Interfaces::IGraph, 32
Type
    GraphFramework::Attribute, 12
    GraphFramework::Interfaces::IAttribute, 26
Value
    GraphFramework::Attribute, 12
    GraphFramework::Interfaces::IAttribute, 26
```