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Classes

[Program](#)

Class Program

Inheritance

System.Object
Program

Inherited Members

- System.Object.Equals(System.Object)
- System.Object.Equals(System.Object, System.Object)
- System.Object.GetHashCode()
- System.Object.GetType()
- System.Object.MemberwiseClone()
- System.Object.ReferenceEquals(System.Object, System.Object)
- System.Object.ToString()

Namespace: [VisualGraph.Client](#)
Assembly: VisualGraph.Client.dll

Syntax

```
public class Program
```

Methods

Main(String[])

Declaration

```
public static Task Main(string[] args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String[]	args	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Namespace VisualGraph.Client.CommandProcessing

Classes

[GraphCommandProcessor](#)

Der GraphCommandProcessor führt Befehle aus Skripten oder der Graphconsole auf den zugewiesenen Graphen aus.

Class GraphCommandProcessor

Der GraphCommandProcessor führt Befehle aus Skripten oder der Graphconsole auf den zugewiesenen Graphen aus.

Inheritance

System.Object
GraphCommandProcessor

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Client.CommandProcessing](#)

Assembly: VisualGraph.Client.dll

Syntax

```
public class GraphCommandProcessor
```

Constructors

GraphCommandProcessor(BasicGraphModel)

Erstellt eine Instanz der Klasse

Declaration

```
public GraphCommandProcessor(BasicGraphModel model)
```

Parameters

TYPE	NAME	DESCRIPTION
BasicGraphModel	model	Model auf das die Befehle ausgeführt werden soll

Methods

Process(String)

Interpretiert den Eingabeparameter und versucht diesen als Befehl auszuführen.

Declaration

```
public string Process(string input)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	input	String mit Befehl und Parameten

Returns

TYPE	DESCRIPTION
System.String	Nachricht über Erfolg oder Fehler

Namespace VisualGraph.Client.Components.Additional

Classes

[AccountComponent](#)

Basisklasse für alle Blazor- Komponenten, die mit dem Benutzer arbeiten. Die Klasse stellt sicher, dass Benutzerdaten immer aktuell sind und erkannt wird, wenn sich der Status (login/logout) ändert.

[AlgorithmPage](#)

Basisklasse für Seiten die einen Algorithmus auf Graphen ausführen

[ContextMenu](#)

Basisklasse für Context- Menüs (Rechtsklick- Menüs)

[GraphInternalUI](#)

Basisklasse für alle UserInterfaces, welche mit Graphen arbeiten. Diese Klasse hilft, die verschiedenen UIs eventgesteuert neu zu rendern

Class AccountComponent

Basisklasse für alle Blazor- Komponenten, die mit dem Benutzer arbeiten. Die Klasse stellt sicher, dass Benutzerdaten immer aktuell sind und erkannt wird, wenn sich der Status (login/logout) ändert.

Inheritance

System.Object
Microsoft.AspNetCore.Components.ComponentBase
AccountComponent

Implements

Microsoft.AspNetCore.Components.IComponent
Microsoft.AspNetCore.Components.IHandleEvent
Microsoft.AspNetCore.Components.IHandleAfterRender

Inherited Members

Microsoft.AspNetCore.Components.ComponentBase.BuildRenderTree(Microsoft.AspNetCore.Components.Rendering.RenderTreeBuilder)
Microsoft.AspNetCore.Components.ComponentBase.OnInitialized()
Microsoft.AspNetCore.Components.ComponentBase.OnInitializedAsync()
Microsoft.AspNetCore.Components.ComponentBase.OnParametersSet()
Microsoft.AspNetCore.Components.ComponentBase.OnParametersSetAsync()
Microsoft.AspNetCore.Components.ComponentBase.StateHasChanged()
Microsoft.AspNetCore.Components.ComponentBase.ShouldRender()
Microsoft.AspNetCore.Components.ComponentBase.OnAfterRender(System.Boolean)
Microsoft.AspNetCore.Components.ComponentBase.InvokeAsync(System.Action)
Microsoft.AspNetCore.Components.ComponentBase.InvokeAsync(System.Func<System.Threading.Tasks.Task>)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IComponent.Attach(Microsoft.AspNetCore.Components.RenderHandle)
Microsoft.AspNetCore.Components.ComponentBase.SetParametersAsync(Microsoft.AspNetCore.Components.ParameterView)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IHandleEvent.HandleEventAsync(Microsoft.AspNetCore.Components.EventCallbackWorkItem, System.Object)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IHandleAfterRender.OnAfterRenderAsync()
System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: VisualGraph.Client.Components.Additional

Assembly: VisualGraph.Client.dll

Syntax

```
public class AccountComponent : ComponentBase, IComponent, IHandleEvent, IHandleAfterRender
```

Properties

AuthTask

Task zum Abfragen des Authentifizierungs- Status.

Declaration

```
[CascadingParameter]  
public Task<AuthenticationState> AuthTask { get; }
```

Property Value

TYPE	DESCRIPTION
System.Threading.Tasks.Task<Microsoft.AspNetCore.Components.Authorization.AuthenticationState>	

HttpClient

Http Client zur Kommunikation mit dem Server

Declaration

```
[Inject]  
public HttpClient HttpClient { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Net.Http.HttpClient	

JSRuntime

JavaScript Runtime zum Aufrufen von JavaScript funktionen

Declaration

```
[Inject]
public IJSRuntime JSRuntime { get; set; }
```

Property Value

TYPE	DESCRIPTION
Microsoft.JSInterop.IJSRuntime	

NavigationManager

Navigation Manager zum Wecheln der URL

Declaration

```
[Inject]
public NavigationManager NavigationManager { get; set; }
```

Property Value

TYPE	DESCRIPTION
Microsoft.AspNetCore.Components.NavigationManager	

ToastService

Service zum Anzeigen von Toast Nachrichten

Declaration

```
[Inject]
public IToastService ToastService { get; set; }
```

Property Value

TYPE	DESCRIPTION
Blazored.Toast.Services.IToastService	

UserModel

Gibt Zugriff auf den Aktuellen benutzer

Declaration

```
public UserModel UserModel { get; set; }
```

Property Value

TYPE	DESCRIPTION
UserModel	

Methods

OnAfterRenderAsync(Boolean)

Frägt nach dem Rendern den aktuellen Login- Status des Benutzers ab

Declaration

```
protected override Task OnAfterRenderAsync(bool firstRender)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Boolean	firstRender	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Overrides

Microsoft.AspNetCore.Components.ComponentBase.OnAfterRenderAsync(System.Boolean)

updateModel()

Hält das Usermodel aktuell, indem Informationen zum eingeloggten User vom Server abgefragt werden.

Declaration

```
protected Task updateModel()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Implements

- Microsoft.AspNetCore.Components.IComponent
- Microsoft.AspNetCore.Components.IHandleEvent
- Microsoft.AspNetCore.Components.IHandleAfterRender

Class AlgorithmPage

Basisklasse für Seiten die einen Algorithmus auf Graphen ausführen

Inheritance

System.Object
Microsoft.AspNetCore.Components.ComponentBase
AlgorithmPage

Implements

Microsoft.AspNetCore.Components.IComponent
Microsoft.AspNetCore.Components.IHandleEvent
Microsoft.AspNetCore.Components.IHandleAfterRender

Inherited Members

Microsoft.AspNetCore.Components.ComponentBase.BuildRenderTree(Microsoft.AspNetCore.Components.Rendering.RenderTreeBuilder)
Microsoft.AspNetCore.Components.ComponentBase.OnInitializedAsync()
Microsoft.AspNetCore.Components.ComponentBase.OnParametersSet()
Microsoft.AspNetCore.Components.ComponentBase.OnParametersSetAsync()
Microsoft.AspNetCore.Components.ComponentBase.StateHasChanged()
Microsoft.AspNetCore.Components.ComponentBase.ShouldRender()
Microsoft.AspNetCore.Components.ComponentBase.OnAfterRenderAsync(System.Boolean)
Microsoft.AspNetCore.Components.ComponentBase.InvokeAsync(System.Action)
Microsoft.AspNetCore.Components.ComponentBase.InvokeAsync(System.Func<System.Threading.Tasks.Task>)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IComponent.Attach(Microsoft.AspNetCore.Components.RenderHandle)
Microsoft.AspNetCore.Components.ComponentBase.SetParametersAsync(Microsoft.AspNetCore.Components.ParameterView)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IHandleEvent.HandleEventAsync(Microsoft.AspNetCore.Components.EventCallbackWorkItem, System.Object)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IHandleAfterRender.OnAfterRenderAsync()
System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Client.Components.Additional](#)
Assembly: VisualGraph.Client.dll

Syntax

```
public abstract class AlgorithmPage : ComponentBase, IComponent, IHandleEvent, IHandleAfterRender
```

Fields

EndNodeClass

CSS- Klasse für den Endknoten des Algorithmus

Declaration

```
public static string EndNodeClass
```

Field Value

TYPE	DESCRIPTION
System.String	

IterationClass

CSS- Klasse für den aktuell geprüften knoten

Declaration

```
public static string IterationClass
```

Field Value

TYPE	DESCRIPTION
System.String	

IterationCurrentNodeClass

CSS- Klasse für den aktuell geprüften knoten

Declaration

```
public static string IterationCurrentNodeClass
```

Field Value

TYPE	DESCRIPTION
System.String	

NodeNotReachableClass

CSS- Klasse für nicht erreichbare Knoten

Declaration

```
public static string NodeNotReachableClass
```

Field Value

TYPE	DESCRIPTION
System.String	

NodeReachableClass

CSS- Klasse für die Vorschau der erreichbaren Knoten und Kanten

Declaration

```
public static string NodeReachableClass
```

Field Value

TYPE	DESCRIPTION
System.String	

PathCost

Kosten für den aktuellen Pfad zwischen Start- und Endknoten

Declaration

```
protected double PathCost
```

Field Value

TYPE	DESCRIPTION
System.Double	

RouteClass

CSS- Klasse für die günstigste Route des Algorithmus

Declaration

```
public static string RouteClass
```

Field Value

TYPE	DESCRIPTION
System.String	

ShortestRouteToEndnode

Diese Liste hält die Referenzen zu den Knoten und die Kosten zu diesen Knoten

Declaration

```
protected List<Tuple<Node, double>> ShortestRouteToEndnode
```

Field Value

TYPE	DESCRIPTION
System.Collections.Generic.List<System.Tuple<Node, System.Double>>	

StartNodeClass

CSS- Klasse für den Startknoten des Algorithmus

Declaration

```
public static string StartNodeClass
```

Field Value

TYPE	DESCRIPTION
System.String	

Properties

Algorithm

Objekt das das Interface IGraphAlgorithm implementiert.

Declaration

```
protected IGraphAlgorithm Algorithm { get; set; }
```

Property Value

TYPE	DESCRIPTION
IGraphAlgorithm	

Filename

Graphname, Dateiname oder Dateipfad des initial zu ladendenden Graphen

Declaration

```
[Parameter]
public string Filename { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

GraphService

Ermöglicht Zugriff auf alle Operationen im Zusammenhang mit graphen.

Declaration

```
[Inject]
protected IGraphService GraphService { get; set; }
```

Property Value

TYPE	DESCRIPTION
IGraphService	

JsRuntime

Ermöglicht es, direkt auf JavaScript Funktionen zuzugreifen

Declaration

```
[Inject]
protected IJSRuntime JsRuntime { get; set; }
```

Property Value

TYPE	DESCRIPTION
Microsoft.JSInterop.IJSRuntime	

LowestWeight

Diese Eigenschaft gibt immer das kleinste Kantengewicht zurück

Declaration

```
protected double LowestWeight { get; }
```

Property Value

TYPE	DESCRIPTION
System.Double	

ModalNegativeEdgeWeighths

Dialog zum korrigieren negativer Kanten

Declaration

```
protected Modal ModalNegativeEdgeWeights { get; set; }
```

Property Value

TYPE	DESCRIPTION
Modal	

toastService

Ermöglicht das einblenden von Toast Informationen

Declaration

```
[Inject]
protected IToastService toastService { get; set; }
```

Property Value

TYPE	DESCRIPTION
Blazored.Toast.Services.IToastService	

Methods

CheckNegativeAndShowModal()

Zeigt einen Dialog an, wenn negative Kantengewichte gefunden wurden.

Declaration

```
protected void CheckNegativeAndShowModal()
```

clearRouteClasses()

Entfernt setzt die Visualisierung der günstigsten Route zurück

Declaration

```
protected void clearRouteClasses()
```

CorrectEdgeWeights()

Wenn der Algorithmus nicht mit negativen Kantengewichten umgehen kann, werden diese mit dieser Methode korrigiert. Das kleinste Gewicht wird als "0" btreachtet.

Declaration

```
protected void CorrectEdgeWeights()
```

OnAfterRender(Boolean)

Bindet die Callback- Methode zum Anzeigen der erreichbaren Knoten an das Knoten- Klick Event

Declaration

```
protected override void OnAfterRender(bool firstRender)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Boolean	firstRender	

Overrides

Microsoft.AspNetCore.Components.ComponentBase.OnAfterRender(System.Boolean)

OnInitialized()

Läd den über den Parameter übermittelten Graphen

Declaration

```
protected override void OnInitialized()
```

Overrides

Microsoft.AspNetCore.Components.ComponentBase.OnInitialized()

removeClassFromNodesAndEdges(String)

Entfernt die übergebene CSS-Klasse von allen Kanten und Knoten

Declaration

```
protected void removeClassFromNodesAndEdges(string classname)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	classname	zu Entfernende Klasse

resetPreview()

Entfernt die Vorschau- CSS- Klassen der erreichbaren Knoten und Kanten

Declaration

```
protected void resetPreview()
```

resetUnreachables()

Entfernt von den nicht erreichbaren Knoten und Kanten die entsprechende CSS- Klasse

Declaration

```
protected void resetUnreachables()
```

RunAlgorithm(Boolean)

Führt den Algorithmus aus

Declaration

```
protected abstract void RunAlgorithm(bool autostep = false)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Boolean	autostep	Gibt an ob ein Einzelschritt oder der gesamte Algorithmus ausgeführt werden soll

setPreview()

Setzt CSS Klasse für alle errichbaren Knoten und Kanten in dem die Methode auf die Ergebnisse der letzten Algorithmus Ergebnisse zugreift

Declaration

```
protected void setPreview()
```

setUnreachables()

Fügt

Declaration

```
protected void setUnreachables()
```

visualizeRoute()

Visualisiert die günstigste route

Declaration

```
protected void visualizeRoute()
```

Implements

- Microsoft.AspNetCore.Components.IComponent
- Microsoft.AspNetCore.Components.IHandleEvent
- Microsoft.AspNetCore.Components.IHandleAfterRender

Class ContextMenu

Basisklasse für Context- Menüs (Rechtsklick- Menüs)

Inheritance

System.Object
Microsoft.AspNetCore.Components.ComponentBase
ContextMenu

Implements

Microsoft.AspNetCore.Components.IComponent
Microsoft.AspNetCore.Components.IHandleEvent
Microsoft.AspNetCore.Components.IHandleAfterRender

Inherited Members

Microsoft.AspNetCore.Components.ComponentBase.BuildRenderTree(Microsoft.AspNetCore.Components.Rendering.RenderTreeBuilder)
Microsoft.AspNetCore.Components.ComponentBase.OnInitialized()
Microsoft.AspNetCore.Components.ComponentBase.OnInitializedAsync()
Microsoft.AspNetCore.Components.ComponentBase.OnParametersSet()
Microsoft.AspNetCore.Components.ComponentBase.OnParametersSetAsync()
Microsoft.AspNetCore.Components.ComponentBase.StateHasChanged()
Microsoft.AspNetCore.Components.ComponentBase.ShouldRender()
Microsoft.AspNetCore.Components.ComponentBase.OnAfterRender(System.Boolean)
Microsoft.AspNetCore.Components.ComponentBase.OnAfterRenderAsync(System.Boolean)
Microsoft.AspNetCore.Components.ComponentBase.InvokeAsync(System.Action)
Microsoft.AspNetCore.Components.ComponentBase.InvokeAsync(System.Func<System.Threading.Tasks.Task>)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IComponent.Attach(Microsoft.AspNetCore.Components.RenderHandle)
Microsoft.AspNetCore.Components.ComponentBase.SetParametersAsync(Microsoft.AspNetCore.Components.ParameterView)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IHandleEvent.HandleEventAsync(Microsoft.AspNetCore.Components.EventCallbackWorkItem, System.Object)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IHandleAfterRender.OnAfterRenderAsync()
System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: VisualGraph.Client.Components.Additional

Assembly: VisualGraph.Client.dll

Syntax

```
public class ContextMenu : ComponentBase, IComponent, IHandleEvent, IHandleAfterRender
```

Fields

visible

Ist das Kontextmenü sichtbar?

Declaration

```
protected bool visible
```

Field Value

TYPE	DESCRIPTION
System.Boolean	

Properties

IsVisible

veröffentlicht die visible Varriable

Declaration

```
public bool IsVisible { get; }
```

Property Value

TYPE	DESCRIPTION
System.Boolean	

PosX

X- Koordinate wo das Menü angezeigt werden soll

Declaration

```
[Parameter]
public double PosX { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Double	

PosY

Y- Koordinate wo das Menü angezeigt werden soll

Declaration

```
[Parameter]
public double PosY { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Double	

Methods

Show()

Belendet das Menü ein oder aus.

Declaration

```
public void Show()
```

Implements

- Microsoft.AspNetCore.Components.IComponent
- Microsoft.AspNetCore.Components.IHandleEvent
- Microsoft.AspNetCore.Components.IHandleAfterRender

Class GraphInternalUI

Basisklasse für alle UserInterfaces, welche mit Graphen arbeiten. Diese Klasse hilft, die verschiedenen UIs eventgesteuert neu zu rendern

Inheritance

System.Object
Microsoft.AspNetCore.Components.ComponentBase
GraphInternalUI

Implements

Microsoft.AspNetCore.Components.IComponent
Microsoft.AspNetCore.Components.IHandleEvent
Microsoft.AspNetCore.Components.IHandleAfterRender

Inherited Members

Microsoft.AspNetCore.Components.ComponentBase.BuildRenderTree(Microsoft.AspNetCore.Components.Rendering.RenderTreeBuilder)
Microsoft.AspNetCore.Components.ComponentBase.OnInitialized()
Microsoft.AspNetCore.Components.ComponentBase.OnInitializedAsync()
Microsoft.AspNetCore.Components.ComponentBase.OnParametersSet()
Microsoft.AspNetCore.Components.ComponentBase.OnParametersSetAsync()
Microsoft.AspNetCore.Components.ComponentBase.StateHasChanged()
Microsoft.AspNetCore.Components.ComponentBase.ShouldRender()
Microsoft.AspNetCore.Components.ComponentBase.OnAfterRender(System.Boolean)
Microsoft.AspNetCore.Components.ComponentBase.InvokeAsync(System.Action)
Microsoft.AspNetCore.Components.ComponentBase.InvokeAsync(System.Func<System.Threading.Tasks.Task>)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IComponent.Attach(Microsoft.AspNetCore.Components.RenderHandle)
Microsoft.AspNetCore.Components.ComponentBase.SetParametersAsync(Microsoft.AspNetCore.Components.ParameterView)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IHandleEvent.HandleEventAsync(Microsoft.AspNetCore.Components.EventCallbackWorkItem, System.Object)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IHandleAfterRender.OnAfterRenderAsync()
System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Client.Components.Additional](#)

Assembly: [VisualGraph.Client.dll](#)

Syntax

```
public abstract class GraphInternalUI : ComponentBase, IComponent, IHandleEvent, IHandleAfterRender
```

Properties

graphService

Ermöglicht Zugriff auf alle Operationen im Zusammenhang mit graphen.

Declaration

```
[Inject]  
public IGraphService graphService { get; set; }
```

Property Value

TYPE	DESCRIPTION
IGraphService	

IsRendered

Gibt an ob die Komponente bereits gerendert wurde

Declaration

```
public bool IsRendered { get; }
```

Property Value

TYPE	DESCRIPTION
System.Boolean	

Methods

ChangedState()

Weißt Blazor an, die Komponente neu zu rendern

Declaration

```
public Task ChangedState()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

OnAfterRenderAsync(Boolean)

Stellt nach dem Rendern an isRendered auf true

Declaration

```
protected override Task OnAfterRenderAsync(bool firstRender)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Boolean	firstRender	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Overrides

Microsoft.AspNetCore.Components.ComponentBase.OnAfterRenderAsync(System.Boolean)

Implements

- Microsoft.AspNetCore.Components.IComponent
- Microsoft.AspNetCore.Components.IHandleEvent
- Microsoft.AspNetCore.Components.IHandleAfterRender

Namespace VisualGraph.Client.Services

Classes

[AuthenticationStateService](#)

Dieser Service fragt vom Server den angemeldeten User ab und authentifiziert Anwender.

[GraphService](#)

Dieser Service steuert alles, was mit Graphen zu tun hat. Der Service kommuniziert sowohl mit JavaScript auf dem Client, als auch mit dem Server der Anwendung.

Interfaces

[IGraphService](#)

Dieses Interface bietet Zugriff auf alle relevanten Komponenten im Zusammenhang mit Graphen und deren Darstellung

Class AuthenticationStateService

Dieser Service fragt vom Server den angemeldeten User ab und authentifiziert Anwender.

Inheritance

System.Object

Microsoft.AspNetCore.Components.Authorization.AuthenticationStateProvider

AuthenticationStateService

Inherited Members

Microsoft.AspNetCore.Components.Authorization.AuthenticationStateProvider.NotifyAuthenticationStateChanged(System.Threading.Tasks.Task<Microsoft.AspNetCore.Components.Authorization.Authenticatio

Microsoft.AspNetCore.Components.Authorization.AuthenticationStateProvider.AuthenticationStateChanged

System.Object.Equals(System.Object)

System.Object.Equals(System.Object, System.Object)

System.Object.GetHashCode()

System.Object.GetType()

System.Object.MemberwiseClone()

System.Object.ReferenceEquals(System.Object, System.Object)

System.Object.ToString()

Namespace: VisualGraph.Client.Services

Assembly: VisualGraph.Client.dll

Syntax

```
public class AuthenticationStateService : AuthenticationStateProvider
```

Constructors

AuthenticationStateService(HttpClient)

Erstellt eine Instanz der Klasse

Declaration

public AuthenticationStateService(HttpClient httpClient)

Parameters

TYPE	NAME	DESCRIPTION
System.Net.Http.HttpClient	httpClient	Dependency Injection des ASP .Net HttpClient

Methods

GetAuthenticationStateAsync()

Fragt den Aktuellen Benutzer vom Server ab

Declaration

public override Task<AuthenticationState> GetAuthenticationStateAsync()

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<Microsoft.AspNetCore.Components.Authorization.AuthenticationState>	AuthenticationState welcher angibt ob der Benutzer anthentifiziert wurde

Overrides

Microsoft.AspNetCore.Components.Authorization.AuthenticationStateProvider.GetAuthenticationStateAsync()

Class GraphService

Dieser Service steuert alles, was mit Graphen zu tun hat. Der Service kommuniziert sowohl mit JavaScript auf dem Client, als auch mit dem Server der Anwendung.

Inheritance

System.Object
GraphService

Implements

[IGraphService](#)

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Client.Services](#)

Assembly: VisualGraph.Client.dll

Syntax

```
public class GraphService : IGraphService
```

Constructors

GraphService(ILogger<GraphService>, IJSRuntime, HttpClient)

Erstellt Instanz des Services

Declaration

```
public GraphService(ILogger<GraphService> logger, IJSRuntime jsRuntime, HttpClient httpClient)
```

Parameters

TYPE	NAME	DESCRIPTION
Microsoft.Extensions.Logging.ILogger< GraphService >	logger	Dependencie Injection ASP .Net Logger
Microsoft.JSInterop.IJSRuntime	jsRuntime	Dependencie Injection ASP .Net JSRuntime
System.Net.Http.HttpClient	httpClient	Dependencie Injection ASP .Net HttpClient

Fields

settingsFile

Gibt an wo die Einstellungen gespeichert sind

Declaration

```
public static string settingsFile
```

Field Value

TYPE	DESCRIPTION
System.String	

Properties

CurrentGraph

Diese Komponente ermöglicht den Zugriff auf die Anzeigekomponente. So können zum Beispiel Entwickler schnell weitere Event Callbacks an die Komponente binden.

Declaration

```
public BasicGraph CurrentGraph { get; set; }
```

Property Value

TYPE	DESCRIPTION
BasicGraph	

CurrentGraphModel

Dieses Model ermöglicht den Zugriff auf den aktuell geladenen Graphen

Declaration

```
public BasicGraphModel CurrentGraphModel { get; set; }
```

Property Value

TYPE	DESCRIPTION
BasicGraphModel	

GraphEditForm

GraphEditForm ist das Formular zum Bearbeiten und Speichern der Graphen

Declaration

```
public GraphEditForm GraphEditForm { get; set; }
```

Property Value

TYPE	DESCRIPTION
GraphEditForm	

GraphStyleParameters

GraphStyleParmeter erlauben es Farben und Liniensträken zur Laufzeit zu verändern

Declaration

```
public GraphStyleParameters GraphStyleParameters { get; set; }
```

Property Value

TYPE	DESCRIPTION
GraphStyleParameters	

Settings

Dies ist die Einstellungen- Komponente. Diese ermöglichte es die GraphStyleParameter zu verändern und zu speichern

Declaration

```
public Settings Settings { get; set; }
```

Property Value

TYPE	DESCRIPTION
Settings	

SettingsCSS

Das ist die Komponente, die das CSS in das HTML Dokument rendert.

Declaration

```
public SettingsCSS SettingsCSS { get; set; }
```

Property Value

TYPE	DESCRIPTION
SettingsCSS	

Methods

Center()

Ruft die JSInterop Methode zum Zentrieren des graphen

Declaration

```
public Task Center()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Crop()

Führt ruft die Methoden Fit und Center auf

Declaration

```
public Task Crop()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

DestroyZoomPan()

Zerstört die durch InitZoomPan erstellte instanz von svgpanzoom.js

Declaration

<code>public Task DestroyZoomPan()</code>

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

DisablePan()

Deaktiviert die Pan- Funktion um andere Drag- Funktionen zu ermöglichen

Declaration

<code>public Task DisablePan()</code>

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

EnablePan()

Aktiviert die Pan- Funktion um andere Drag- Funktionen zu ermöglichen

Declaration

<code>public Task EnablePan()</code>

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Fit()

Ruft die JSInterop Methode zum Anpassen der Größe des Graphen, an den svgpanzoom.js Container auf

Declaration

<code>public Task Fit()</code>

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

GetBrowserSizes()

Gibt die Größe des Browserfensters zurück

Declaration

```
public Task<BrowserSizes> GetBrowserSizes()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<BrowserSizes>	Ganzzahlige Werte für Höhe und Weite in Pixel

GetCssMarkup()

Rendert das HTML- Styletag mit den GraphStyleParametern

Declaration

```
public Task<RenderFragment> GetCssMarkup()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<Microsoft.AspNetCore.Components.RenderFragment>	Renderbares Renderfragment

GetEditFormRenderFragment()

Rendert das Formular zum bearbeiten des Graphen

Declaration

```
public Task<RenderFragment> GetEditFormRenderFragment()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<Microsoft.AspNetCore.Components.RenderFragment>	Renderbares Renderfragment

GetGraph(String)

Ruft das unter filename gefundene Graph Modell vom Server ab.

Declaration

```
public Task<BasicGraphModel> GetGraph(string filename)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	filename	Name oder Dateipfad des Graphen

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<BasicGraphModel>	Das gefundene Model oder null

GetGraphFileNames()

Ruft alle Graph- Namen vom Server ab.

Declaration

```
public Task<string[]> GetGraphFileNames()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<System.String[]>	alle auf dem Server vorhandenen Graph- Namen

GetRenderFragment(Boolean)

Gibt das Renderfragment für das aktuell geledene Graphmodel zurück

Declaration

```
public Task<RenderFragment> GetRenderFragment(bool withDefaultCallbacks = true)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Boolean	withDefaultCallbacks	(optional) legt fest ob der Graph mit Standard Event- Callbacks gerendert werden soll. default = true

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<Microsoft.AspNetCore.Components.RenderFragment>	Renderbares Renderfragment

GetRenderFragment(BasicGraphModel, Boolean)

Gibt das Renderfragment für das übergebene Graphmodel zurück

Declaration

```
public Task<RenderFragment> GetRenderFragment(BasicGraphModel graph, bool withDefaultCallbacks = true)
```

Parameters

TYPE	NAME	DESCRIPTION
BasicGraphModel	graph	Zu rendernder Graph

TYPE	NAME	DESCRIPTION
System.Boolean	withDefaultCallbacks	(optional) legt fest ob der Graph mit Standard Event- Callbacks gerendert werden soll. default = true

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<Microsoft.AspNetCore.Components.RenderFragment>	Renderbares Renderfragment

GetSettingsRenderFragment()

Rendert das Formular zum bearbeiten der Graph- Style- Parameter

Declaration

```
public Task<RenderFragment> GetSettingsRenderFragment()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<Microsoft.AspNetCore.Components.RenderFragment>	Renderbares Renderfragment

GetSvgContainerInformation()

Ruft über JSInterop die Größe des svgpanzoom.js Conainers ab

Declaration

```
public Task<SvgContainerInformation> GetSvgContainerInformation()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task< SvgContainerInformation >	

GetSvgPanZoomInformation()

Ruft über JSInterop die Informationen wie Pan, Zoom und die ViewBox des scgpanzoom.js Conainers ab

Declaration

```
public Task<SvgPanZoomInformation> GetSvgPanZoomInformation()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task< SvgPanZoomInformation >	

GetTranslatedCoordinate(Double, Double)

Übersetzt Koordinaten aus Bildschrim- Koordinatensystem ins Graph- Koordinatensystem

Declaration

```
public Task<Point2> GetTranslatedCoordinate(double x, double y)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Double	x	X- Koordinate
System.Double	y	Y- Koordinate

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<Point2>	Punkt Graph- Koordinatensystem

InitZoomPan(DotNetObjectReference<BasicGraph>)

Initialisiert die svgpanzoom.js Anwendung und setzt JSInterop Referenz, damit Objekte zwischen VisualGraph.Client.dll und JavaScript kommuniziert werden kann

Declaration

```
public Task InitZoomPan(DotNetObjectReference<BasicGraph> reference)
```

Parameters

TYPE	NAME	DESCRIPTION
Microsoft.JSInterop.DotNetObjectReference<BasicGraph>	reference	Referenz auf die aktuelle BasicGraph- Komponente

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

LayoutGraph(Double, Double)

Berechnet ein automatisches Layout für den aktuellen Graph

Declaration

```
public Task LayoutGraph(double scalex = 2.2, double scaley = 2.2)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Double	scalex	Skalierung entlang der X- Achse

TYPE	NAME	DESCRIPTION
System.Double	scaley	Skalierung entlang der Y- Achse

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

LoadGraph(String)

Läd den Graphen mit dem angegebenen Namen als CurrentGraph

Declaration

```
public Task LoadGraph(string filename)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	filename	Name oder Dateipfad des Graphen

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	Task

LoadGraphStyleParameters()

Lad die GraphStyleParameter vom Server

Declaration

```
public Task LoadGraphStyleParameters()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	Task

Rerender()

Rendert Alle GraphInternalUls neu

Declaration

```
public Task Rerender()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Rerender(Edge)

Rendert eine einzelne Kante des Graphen neu

Declaration

```
public Task Rerender(Edge edge = null)
```

Parameters

TYPE	NAME	DESCRIPTION
Edge	edge	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Rerender(Node)

Rendert einen einzelnen Knoten des Graphen neu

Declaration

```
public Task Rerender(Node node = null)
```

Parameters

TYPE	NAME	DESCRIPTION
Node	node	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Rerender<T>()

Rendert die Komponente des angegebenen Typs neu

Declaration

```
public Task Rerender<T>()  
  
    where T : GraphInternalUI
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Type Parameters

NAME	DESCRIPTION
T	Typ der neu zu rendernden Komponente. T muss GraphInternalUI sein

Resize()

Ruft die JSInterop Methode "Rezize" von svgpanzoom.js auf

Declaration

```
public Task Resize()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

SaveGraph(String)

Speichert den Graph unter angegebenem Dateinamen auf dem Server

Declaration

```
public Task<bool> SaveGraph(string filename = "")
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	filename	Name oder Dateipfad des Graphen

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<System.Boolean>	true, wenn erfolgreich und false bei Fehler

SaveGraphStyleParameters(GraphStyleParameters)

Speichert GraphStyleParameter auf dem Server. Wenn kein Parameter angegeben wurde, weden Defaultwerte gespeichert

Declaration

```
public Task SaveGraphStyleParameters(GraphStyleParameters styleParameters = null)
```

Parameters

TYPE	NAME	DESCRIPTION
GraphStyleParameters	styleParameters	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

UpdateBBox()

Ruft die JSInterop Methode zum Aktualisieren der BoundingBox (Konvexehülle) der svgpanzoom.js auf

Declaration

```
public Task UpdateBBox()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Implements

[IGraphService](#)

Interface IGraphService

Dieses Interface bietet Zugriff auf alle relevanten Komponenten im Zusammenhang mit Graphen und deren Darstellung

Namespace: [VisualGraph.Client.Services](#)

Assembly: VisualGraph.Client.dll

Syntax

```
public interface IGraphService
```

Properties

CurrentGraph

Diese Komponente ermöglicht den Zugriff auf die Anzeigekomponente. So können zum Beispiel Entwickler schnell weitere Event Callbacks an die Komponente binden.

Declaration

```
BasicGraph CurrentGraph { get; set; }
```

Property Value

TYPE	DESCRIPTION
BasicGraph	

CurrentGraphModel

Dieses Model ermöglicht den Zugriff auf den aktuell geladenen Graphen

Declaration

```
BasicGraphModel CurrentGraphModel { get; set; }
```

Property Value

TYPE	DESCRIPTION
BasicGraphModel	

GraphEditForm

GraphEditForm ist das Formular zum Bearbeiten und Speichern der Graphen

Declaration

```
GraphEditForm GraphEditForm { get; set; }
```

Property Value

TYPE	DESCRIPTION
GraphEditForm	

GraphStyleParameters

GraphStyleParmeter erlauben es Farben und Liniensträken zur Laufzeit zu verändern

Declaration

```
GraphStyleParameters GraphStyleParameters { get; set; }
```

Property Value

TYPE	DESCRIPTION
GraphStyleParameters	

Settings

Dies ist die Einstellungen- Komponente. Diese ermöglichte es die GraphStyleParameter zu verändern und zu speichern

Declaration

```
Settings Settings { get; set; }
```

Property Value

TYPE	DESCRIPTION
Settings	

SettingsCSS

Das ist die Komponente, die das CSS in das HTML Dokument rendert.

Declaration

```
SettingsCSS SettingsCSS { get; set; }
```

Property Value

TYPE	DESCRIPTION
SettingsCSS	

Methods

Center()

Ruft die JSInterop Methode zum Zentrieren des graphen

Declaration

```
Task Center()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Crop()

Führt ruft die Methoden Fit und Center auf

Declaration

```
Task Crop()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

DestroyZoomPan()

Zerstört die durch InitZoomPan erstellte instanz von svgpanzoom.js

Declaration

Task DestroyZoomPan()

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

DisablePan()

Deaktiviert die Pan- Funktion um andere Drag- Funktionen zu ermöglichen

Declaration

Task DisablePan()

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

EnablePan()

Aktiviert die Pan- Funktion um andere Drag- Funktionen zu ermöglichen

Declaration

Task EnablePan()

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Fit()

Ruft die JSInterop Methode zum Anpassen der Größe des Graphen, an den svgpanzoom.js Container auf

Declaration

Task Fit()

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

GetBrowserSizes()

Gibt die Größe des Browserfensters zurück

Declaration

```
Task<BrowserSizes> GetBrowserSizes()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<BrowserSizes>	Ganzzahlige Werte für Höhe und Weite in Pixel

GetCssMarkup()

Rendert das HTML- Styletag mit den GraphStyleParametern

Declaration

```
Task<RenderFragment> GetCssMarkup()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<Microsoft.AspNetCore.Components.RenderFragment>	Renderbares Renderfragment

GetEditFormRenderFragment()

Rendert das Formular zum bearbeiten des Graphen

Declaration

```
Task<RenderFragment> GetEditFormRenderFragment()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<Microsoft.AspNetCore.Components.RenderFragment>	Renderbares Renderfragment

GetGraph(String)

Ruft das unter filename gefundene Graph Modell vom Server ab.

Declaration

```
Task<BasicGraphModel> GetGraph(string filename)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	filename	Name oder Dateipfad des Graphen

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<BasicGraphModel>	Das gefundene Model oder null

GetGraphFileNames()

Ruft alle Graph- Namen vom Server ab.

Declaration

```
Task<string[]> GetGraphFileNames()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<System.String[]>	alle auf dem Server vorhandenen Graph- Namen

GetRenderFragment(Boolean)

Gibt das Renderfragment für das aktuell geledene Graphmodel zurück

Declaration

```
Task<RenderFragment> GetRenderFragment(bool withDefaultCallbacks = true)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Boolean	withDefaultCallbacks	(optional) legt fest ob der Graph mit Standard Event- Callbacks gerendert werden soll. default = true

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<Microsoft.AspNetCore.Components.RenderFragment>	Renderbares Renderfragment

GetRenderFragment(BasicGraphModel, Boolean)

Gibt das Renderfragment für das übergebene Graphmodel zurück

Declaration

```
Task<RenderFragment> GetRenderFragment(BasicGraphModel graphModel, bool withDefaultCallbacks = true)
```

Parameters

TYPE	NAME	DESCRIPTION
BasicGraphModel	graphModel	Zu rendernder Graph

TYPE	NAME	DESCRIPTION
System.Boolean	withDefaultCallbacks	(optional) legt fest ob der Graph mit Standard Event- Callbacks gerendert werden soll. default = true

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<Microsoft.AspNetCore.Components.RenderFragment>	Renderbares Renderfragment

GetSettingsRenderFragment()

Rendert das Formular zum bearbeiten der Graph- Style- Parameter

Declaration

```
Task<RenderFragment> GetSettingsRenderFragment()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<Microsoft.AspNetCore.Components.RenderFragment>	Renderbares Renderfragment

GetSvgContainerInformation()

Ruft über JSInterop die Größe des svgpanzoom.js Conainers ab

Declaration

```
Task<SvgContainerInformation> GetSvgContainerInformation()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task< SvgContainerInformation >	

GetSvgPanZoomInformation()

Ruft über JSInterop die Informationen wie Pan, Zoom und die ViewBox des scgpanzoom.js Conainers ab

Declaration

```
Task<SvgPanZoomInformation> GetSvgPanZoomInformation()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task< SvgPanZoomInformation >	

GetTranslatedCoordinate(Double, Double)

Übersetzt Koordinaten aus Bildschrim- Koordinatensystem ins Graph- Koordinatensystem

Declaration

```
Task<Point2> GetTranslatedCoordinate(double x, double y)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Double	x	X- Koordinate
System.Double	y	Y- Koordinate

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<Point2>	Punkt Graph- Koordinatensystem

InitZoomPan(DotNetObjectReference<BasicGraph>)

Initialisiert die svgpanzoom.js Anwendung und setzt JSInterop Referenz, damit Objekte zwischen VisualGraph.Client.dll und JavaScript kommuniziert werden kann

Declaration

```
Task InitZoomPan(DotNetObjectReference<BasicGraph> reference)
```

Parameters

TYPE	NAME	DESCRIPTION
Microsoft.JSInterop.DotNetObjectReference<BasicGraph>	reference	Referenz auf die aktuelle BasicGraph- Komponente

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

LayoutGraph(Double, Double)

Berechnet ein automatisches Layout für den aktuellen Graph

Declaration

```
Task LayoutGraph(double scalex = 2.2, double scaley = 2.2)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Double	scalex	Skalierung entlang der X- Achse

TYPE	NAME	DESCRIPTION
System.Double	scaley	Skalierung entlang der Y- Achse

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

LoadGraph(String)

Läd den Graphen mit dem angegebenen Namen als CurrentGraph

Declaration

Task LoadGraph(string filename)

Parameters

TYPE	NAME	DESCRIPTION
System.String	filename	Name oder Dateipfad des Graphen

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	Task

LoadGraphStyleParameters()

Lad die GraphStyleParameter vom Server

Declaration

Task LoadGraphStyleParameters()

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	Task

Rerender()

Rendert Alle GraphInternalUls neu

Declaration

Task Rerender()

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Rerender(Edge)

Rendert eine einzelne Kante des Graphen neu

Declaration

Task Rerender(Edge instance)

Parameters

TYPE	NAME	DESCRIPTION
Edge	instance	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Rerender(Node)

Rendert einen einzelnen Knoten des Graphen neu

Declaration

Task Rerender(Node instance)

Parameters

TYPE	NAME	DESCRIPTION
Node	instance	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Rerender<T>()

Rendert die Komponente des angegebenen Typs neu

Declaration

Task Rerender<T>() where T : GraphInternalUI

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Type Parameters

NAME	DESCRIPTION
T	Typ der neu zu rendernden Komponente. T muss GraphInternalUI sein

Resize()

Ruft die JSInterop Methode "Rezize" von svgpanzoom.js auf

Declaration

Task Resize()

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

SaveGraph(String)

Speichert den Graph unter angegebenem Dateinamen auf dem Server

Declaration

Task<bool> SaveGraph(string filename = null)
--

Parameters

TYPE	NAME	DESCRIPTION
System.String	filename	Name oder Dateipfad des Graphen

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<System.Boolean>	true, wenn erfolgreich und false bei Fehler

SaveGraphStyleParameters(GraphStyleParameters)

Speichert GraphStyleParameter auf dem Server. Wenn kein Parameter angegeben wurde, weden Defaultwerte gespeichert

Declaration

Task SaveGraphStyleParameters(GraphStyleParameters graphStyleParameters = null)

Parameters

TYPE	NAME	DESCRIPTION
GraphStyleParameters	graphStyleParameters	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

UpdateBBox()

Ruft die JSInterop Methode zum Aktualisieren der BoundingBox (Konvexehülle) der svgpanzoom.js auf

Declaration

Task UpdateBBox()

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

Namespace VisualGraph.Client.Shared

Classes

[NavLinkExtension](#)

Erweiterung für Navigationslinks in Menüs für Untermenüs

Class NavLinkExtension

Erweiterung für Navigationslinks in Menüs für Untermenüs

Inheritance

System.Object
Microsoft.AspNetCore.Components.ComponentBase
Microsoft.AspNetCore.Components.Routing.NavLink
NavLinkExtension

Implements

Microsoft.AspNetCore.Components.IComponent
Microsoft.AspNetCore.Components.IHandleEvent
Microsoft.AspNetCore.Components.IHandleAfterRender
System.IDisposable

Inherited Members

Microsoft.AspNetCore.Components.Routing.NavLink.OnParametersSet()
Microsoft.AspNetCore.Components.Routing.NavLink.Dispose()
Microsoft.AspNetCore.Components.Routing.NavLink.ActiveClass
Microsoft.AspNetCore.Components.Routing.NavLink.AdditionalAttributes
Microsoft.AspNetCore.Components.Routing.NavLink.CssClass
Microsoft.AspNetCore.Components.Routing.NavLink.ChildContent
Microsoft.AspNetCore.Components.Routing.NavLink.Match
Microsoft.AspNetCore.Components.ComponentBase.OnInitializedAsync()
Microsoft.AspNetCore.Components.ComponentBase.OnParametersSetAsync()
Microsoft.AspNetCore.Components.ComponentBase.StateHasChanged()
Microsoft.AspNetCore.Components.ComponentBase.ShouldRender()
Microsoft.AspNetCore.Components.ComponentBase.OnAfterRender(System.Boolean)
Microsoft.AspNetCore.Components.ComponentBase.OnAfterRenderAsync(System.Boolean)
Microsoft.AspNetCore.Components.ComponentBase.InvokeAsync(System.Action)
Microsoft.AspNetCore.Components.ComponentBase.InvokeAsync(System.Func<System.Threading.Tasks.Task>)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IComponent.Attach(Microsoft.AspNetCore.Components.RenderHandle)
Microsoft.AspNetCore.Components.ComponentBase.SetParametersAsync(Microsoft.AspNetCore.Components.ParameterView)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IHandleEvent.HandleEventAsync(Microsoft.AspNetCore.Components.EventCallbackWorkItem, System.Object)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IHandleAfterRender.OnAfterRenderAsync()
System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Client.Shared](#)

Assembly: VisualGraph.Client.dll

Syntax

```
public class NavLinkExtension : NavLink, IComponent, IHandleEvent, IHandleAfterRender, IDisposable
```

Constructors

NavLinkExtension()

Erstellt Instanz der Klasse

Declaration

```
public NavLinkExtension()
```

Properties

Icon

Das Symbol für den Menüeintrag

Declaration

```
[Parameter]  
public string Icon { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

IsSubmenu

Ist dies ein Submenüeintrag

Declaration

```
[Parameter]
public bool IsSubmenu { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Boolean	

ListItemClass

HTML LI- Element Klasse

Declaration

```
[Parameter]
public string ListItemClass { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Text

Der Text für den Menüeintrag

Declaration

```
[Parameter]
public string Text { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Methods

BuildRenderTree(RenderTreeBuilder)

Erstellt das zu rendernde Element

Declaration

```
protected override void BuildRenderTree(RenderTreeBuilder builder)
```

Parameters

TYPE	NAME	DESCRIPTION
Microsoft.AspNetCore.Components.Rendering.RenderTreeBuilder	builder	

Overrides

Microsoft.AspNetCore.Components.Routing.NavLink.BuildRenderTree(Microsoft.AspNetCore.Components.Rendering.RenderTreeBuilder)

OnInitialized()

Setzt die default Aktiv- Klasse

Declaration

```
protected override void OnInitialized()
```

Overrides

Microsoft.AspNetCore.Components.Routing.NavLink.OnInitialized()

Implements

- Microsoft.AspNetCore.Components.IComponent
- Microsoft.AspNetCore.Components.IHandleEvent
- Microsoft.AspNetCore.Components.IHandleAfterRender
- System.IDisposable

Namespace VisualGraph.Client.Shared.Algorithm

Classes

[DijkstraAlgorithm](#)

Dijkstra Algorithmus.

Interfaces

[IGraphAlgorithm](#)

Interface für Algorithmen

Class DijkstraAlgorithm

Dijkstra Algorithmus.

Inheritance

System.Object
DijkstraAlgorithm

Implements

[IGraphAlgorithm](#)

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Client.Shared.Algorithm](#)

Assembly: VisualGraph.Client.dll

Syntax

```
public class DijkstraAlgorithm : IGraphAlgorithm
```

Constructors

DijkstraAlgorithm(BasicGraphModel, String)

Erstellt eine Instanz des Algorithmus

Declaration

```
public DijkstraAlgorithm(BasicGraphModel model, string startNodeId = "-1")
```

Parameters

TYPE	NAME	DESCRIPTION
BasicGraphModel	model	Graph Model
System.String	startNodeId	ID des Startknotens

Fields

StepCount

Anzahl der bereits ausgeführten Iterationen

Declaration

```
public int StepCount
```

Field Value

TYPE	DESCRIPTION
System.Int32	

Properties

CanHandleNegativeEgdes

Der Algorithmus funktioniert für negative Kanten

Declaration

```
public bool CanHandleNegativeEgdes { get; }
```

Property Value

TYPE	DESCRIPTION
System.Boolean	

EndNode

End- Knoten für die zu berechnende Route

Declaration

```
public Node EndNode { get; set; }
```

Property Value

TYPE	DESCRIPTION
Node	

Name

Name des Algorithmus

Declaration

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

Property Value

TYPE	DESCRIPTION
System.String	

RemainingSteps

Verbleibende Iterationen bis der Algorithmus vollständig ausgeführt wurde

Declaration

```
public int RemainingSteps { get; }
```

Property Value

TYPE	DESCRIPTION
System.Int32	

Results

Ergebnisse des Algorithmus

Declaration

```
public List<AlgorithmResultTuple> Results { get; }
```

Property Value

TYPE	DESCRIPTION
System.Collections.Generic.List<AlgorithmResultTuple>	

StartNode

Start Knoten für den der Algorithmus ausgeführt werden soll

Declaration

```
public Node StartNode { get; }
```

Property Value

TYPE	DESCRIPTION
Node	

Methods

GetShortestRoute(String, String)

Berechnet die günstigste Route vom Startknoten zum Endknoten

Declaration

```
public List<Tuple<Node, double>> GetShortestRoute(string startId = "-1", string endId = "-1")
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	startId	ID des Startknotens
System.String	endId	ID des Endknotens

Returns

TYPE	DESCRIPTION
System.Collections.Generic.List<System.Tuple<Node, System.Double> >	Route als Liste mit Knoten und Kosten Paaren

Iterate(Boolean)

Führt den Algorithmus aus

Declaration

```
public int Iterate(bool auto = false)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Boolean	auto	Wenn wahr, wird der Algorithmus vollständig ausgeführt. Sonst nur eine Iteration

Returns

TYPE	DESCRIPTION
System.Int32	Anzahl der übrigen Iterationen

Implements

[IGraphAlgorithm](#)

Interface IGraphAlgorithm

Interface für Algorithmen

Namespace: [VisualGraph.Client.Shared.Algorithm](#)

Assembly: VisualGraph.Client.dll

Syntax

```
public interface IGraphAlgorithm
```

Properties

CanHandleNegativeEgdes

Der Algorithmus funktioniert für negative Kanten

Declaration

```
bool CanHandleNegativeEgdes { get; }
```

Property Value

TYPE	DESCRIPTION
System.Boolean	

EndNode

End- Knoten für die zu berechnende Route

Declaration

```
Node EndNode { get; }
```

Property Value

TYPE	DESCRIPTION
Node	

Name

Name des Algorithmus

Declaration

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

Property Value

TYPE	DESCRIPTION
System.String	

RemainingSteps

Verbleibende Iterationen bis der Algorithmus vollständig ausgeführt wurde

Declaration

```
int RemainingSteps { get; }
```

Property Value

TYPE	DESCRIPTION
System.Int32	

Results

Ergebnisse des Algorithmus

Declaration

```
List<AlgorithmResultTuple> Results { get; }
```

Property Value

TYPE	DESCRIPTION
System.Collections.Generic.List<AlgorithmResultTuple>	

StartNode

Start Knoten für den der Algorithmus ausgeführt werden soll

Declaration

```
Node StartNode { get; }
```

Property Value

TYPE	DESCRIPTION
Node	

Methods

GetShortestRoute(String, String)

Berechnet die günstigste Route vom Startknoten zum Endknoten

Declaration

```
List<Tuple<Node, double>> GetShortestRoute(string startnodeId, string endnodeId)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	startnodeId	ID des Startknotens
System.String	endnodeId	ID des Endknotens

Returns

TYPE	DESCRIPTION

TYPE	DESCRIPTION
System.Collections.Generic.List<System.Tuple< Node , System.Double> >	Route als Liste mit Knoten und Kosten Paaren

Iterate(Boolean)

Führt den Algorithmus aus

Declaration

```
int Iterate(bool auto = false)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Boolean	auto	Wenn wahr, wird der Algorithmus vollständig ausgeführt. Sonst nur eine Iteration

Returns

TYPE	DESCRIPTION
System.Int32	Anzahl der übrigen Iterationen

Namespace VisualGraph.Client.Shared.EventHandling

Classes

[DefaultCallbacks](#)

Standard Callbacks für Graph- Events

[GraphMouseEventArgs<T>](#)

Kapselt das Event- Ziel und MausEvents

[GraphTouchEventArgs<T>](#)

Kapselt das Event- Ziel und TouchEvent

Class DefaultCallbacks

Standard Callbacks für Graph- Events

Inheritance

System.Object
DefaultCallbacks

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Client.Shared.EventHandling](#)
Assembly: VisualGraph.Client.dll

Syntax

```
public static class DefaultCallbacks
```

Methods

ActivateDragEdge(Object, GraphMouseEventArgs<Edge>)

Aktiviert den Modus zum Verschieben einer Kante

Declaration

```
public static void ActivateDragEdge(object sender, GraphMouseEventArgs<Edge> args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Object	sender	Graph Model für welches das Verschieben aktiviert werden soll
GraphMouseEventArgs<Edge>	args	Argumente (MouseEvent + Node)

ActivateDragEdge(Object, GraphTouchEventArgs<Edge>)

Aktiviert den Modus zum Verschieben einer Kante

Declaration

```
public static void ActivateDragEdge(object sender, GraphTouchEventArgs<Edge> args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Object	sender	Graph Model für welches das Verschieben aktiviert werden soll

TYPE	NAME	DESCRIPTION
GraphTouchEventArgs<Edge>	args	Argumente (TouchEvent + Node)

ActivateDragNode(Object, GraphMouseEventArgs<Node>)

Aktiviert den Modus zum Verschieben eines Knotens

Declaration

```
public static void ActivateDragNode(object sender, GraphMouseEventArgs<Node> args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Object	sender	Graph Model für welches das Verschieben aktiviert werden soll
GraphMouseEventArgs<Node>	args	Argumente (MouseEvent + Node)

ActivateDragNode(Object, GraphTouchEventArgs<Node>)

Aktiviert den Modus zum Verschieben einer Knotens

Declaration

```
public static void ActivateDragNode(object sender, GraphTouchEventArgs<Node> args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Object	sender	Graph Model für welches das Verschieben aktiviert werden soll
GraphTouchEventArgs<Node>	args	Argumente (TouchEvent + Node)

DeactivateDragEdge(Object, MouseEventArgs)

Deaktiviert den Modus zum Verschieben einer Kante

Declaration

```
public static void DeactivateDragEdge(object sender, MouseEventArgs args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Object	sender	Graph Model für welches das Verschieben aktiviert werden soll

TYPE	NAME	DESCRIPTION
Microsoft.AspNetCore.Components.Web.MouseEventArgs	args	Argumente (MouseEvent)

DeactivateDragEdge(Object, GraphMouseEventArgs<Edge>)

Deaktiviert den Modus zum Verschieben einer Kante

Declaration

```
public static void DeactivateDragEdge(object sender, GraphMouseEventArgs<Edge> args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Object	sender	Graph Model für welches das Verschieben aktiviert werden soll
GraphMouseEventArgs<Edge>	args	Argumente (MouseEvent + Node)

DeactivateDragEdge(Object, GraphTouchEventArgs<Edge>)

Deaktiviert den Modus zum Verschieben einer Kante

Declaration

```
public static void DeactivateDragEdge(object sender, GraphTouchEventArgs<Edge> args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Object	sender	Graph Model für welches das Verschieben aktiviert werden soll
GraphTouchEventArgs<Edge>	args	Argumente (TouchEvent + Node)

DeactivateDragNode(Object, MouseEventArgs)

Deaktiviert den Modus zum Verschieben einer Kante

Declaration

```
public static void DeactivateDragNode(object sender, MouseEventArgs args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Object	sender	Graph Model für welches das Verschieben deaktiviert werden soll

TYPE	NAME	DESCRIPTION
Microsoft.AspNetCore.Components.Web.MouseEventArgs	args	Argumente (MouseEvent)

DeactivateDragNode(Object, GraphMouseEventArgs<Node>)

Deaktiviert den Modus zum Verschieben einer Kante

Declaration

```
public static void DeactivateDragNode(object sender, GraphMouseEventArgs<Node> args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Object	sender	Graph Model für welches das Verschieben deaktiviert werden soll
GraphMouseEventArgs<Node>	args	Argumente (MouseEvent + Node)

DeactivateDragNode(Object, GraphTouchEventArgs<Node>)

Deaktiviert den Modus zum Verschieben einer Kante

Declaration

```
public static void DeactivateDragNode(object sender, GraphTouchEventArgs<Node> args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Object	sender	Graph Model für welches das Verschieben deaktiviert werden soll
GraphTouchEventArgs<Node>	args	Argumente (TouchEvent + Node)

MoveNodeOrEdge(Object, MouseEventArgs)

Verschiebt eine aktivierte Kante oder einen aktivierten Knoten

Declaration

```
public static void MoveNodeOrEdge(object sender, MouseEventArgs args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Object	sender	Graph Model Objekt

TYPE	NAME	DESCRIPTION
Microsoft.AspNetCore.Components.Web.MouseEventArgs	args	Mouse Event

MoveNodeOrEdge(Object, TouchEventArgs)

Verschiebt eine aktivierte Kante oder einen aktivierten Knoten

Declaration

```
public static void MoveNodeOrEdge(object sender, TouchEventArgs args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Object	sender	Graph Model Objekt
Microsoft.AspNetCore.Components.Web.TouchEventArgs	args	Mouse Event

ToggleActiveStateEdge(Object, GraphMouseEventArgs<Edge>)

Aktiviert und Deaktiviert die in den Argumenten angegebenen Knoten

Declaration

```
public static void ToggleActiveStateEdge(object sender, GraphMouseEventArgs<Edge> args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Object	sender	Graph Model
GraphMouseEventArgs<Edge>	args	Argumente(MouseEvent + Node)

ToggleActiveStateEdge(Object, GraphTouchEventArgs<Edge>)

Aktiviert und Deaktiviert die in den Argumenten angegebenen Knoten

Declaration

```
public static void ToggleActiveStateEdge(object sender, GraphTouchEventArgs<Edge> args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Object	sender	Graph Model

TYPE	NAME	DESCRIPTION
GraphTouchEventArgs<Edge>	args	Argumente(TouchEvent + Node)

ToggleActiveStateNode(Object, GraphMouseEventArgs<Node>)

Aktiviert den in den Argumenten angegebenen Knoten

Declaration

```
public static void ToggleActiveStateNode(object sender, GraphMouseEventArgs<Node> args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Object	sender	Graph Model
GraphMouseEventArgs<Node>	args	Argumente (MausEvent + Node)

ToggleActiveStateNode(Object, GraphTouchEventArgs<Node>)

Aktiviert den in den Argumenten angegebenen Knoten

Declaration

```
public static void ToggleActiveStateNode(object sender, GraphTouchEventArgs<Node> args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Object	sender	Graph Model
GraphTouchEventArgs<Node>	args	Argumente(TouchEvent + Node)

Class GraphMouseEventArgs<T>

Kapselt das Event- Ziel und MausEvents

Inheritance

System.Object
GraphMouseEventArgs<T>

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Client.Shared.EventHandling](#)

Assembly: VisualGraph.Client.dll

Syntax

```
public class GraphMouseEventArgs<T>
```

Type Parameters

NAME	DESCRIPTION
T	Typ des Ziels z.B. Node, Edge

Constructors

GraphMouseEventArgs(T, MouseEventArgs)

Erstellt ein Objekt der Klasse.

Declaration

```
public GraphMouseEventArgs(T target, MouseEventArgs e)
```

Parameters

TYPE	NAME	DESCRIPTION
T	target	Ziel des Events. Node oder Edge
Microsoft.AspNetCore.Components.Web.MouseEventArgs	e	Event Argumente

Properties

MouseEventArgs

Maus Event objekt

Declaration

```
public MouseEventArgs MouseEventArgs { get; set; }
```


Property Value

TYPE	DESCRIPTION
Microsoft.AspNetCore.Components.Web.MouseEventArgs	

Target

Ziel des Events.

Declaration

```
public T Target { get; set; }
```

Property Value

TYPE	DESCRIPTION
T	

Class GraphTouchEventArgs<T>

Kapselt das Event- Ziel und TouchEvent

Inheritance

System.Object
GraphTouchEventArgs<T>

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Client.Shared.EventHandling](#)

Assembly: VisualGraph.Client.dll

Syntax

```
public class GraphTouchEventArgs<T>
```

Type Parameters

NAME	DESCRIPTION
T	Typ des Ziels z.B. Node, Edge

Constructors

GraphTouchEventArgs(T, TouchEventArgs)

Erstellt ein Objekt der Klasse.

Declaration

```
public GraphTouchEventArgs(T target, TouchEventArgs e)
```

Parameters

TYPE	NAME	DESCRIPTION
T	target	Ziel des Events. Node oder Edge
Microsoft.AspNetCore.Components.Web.TouchEventArgs	e	Event Argumente

Properties

Target

Ziel des Events.

Declaration

```
public T Target { get; set; }
```

Property Value

TYPE	DESCRIPTION
T	

TouchEventArgs

Touch Event objekt

Declaration

```
public TouchEventArgs TouchEventArgs { get; set; }
```

Property Value

TYPE	DESCRIPTION
Microsoft.AspNetCore.Components.Web.TouchEventArgs	

Namespace VisualGraph.Client.Shared.Models

Classes

[AlgorithmResultTuple](#)

Stellt die resultate einer Algorithmus- Iteration dar.

[BrowserSizes](#)

Datenstruktur für JSInteraktion Browser- Informationen

[CoordinateAxis](#)

Erstellt ein Koordinatensystem als HTML- Markup

[SvgContainerInformation](#)

Datenstruktur für JSInteraktion

[SvgDisplay](#)

Diese Klasse kapselt alle Informationen für den SVG- Container in welchem Graphen gespeichert werden

[SvgPanZoomInformation](#)

Informationen zur panzoom.js instanz

Class AlgorithmResultTuple

Stellt die resultate einer Algorithmus- Iteration dar.

Inheritance

System.Object

System.Tuple<[Node](#), System.Collections.Generic.Dictionary<[Node](#), [Node](#)>, System.Collections.Generic.Dictionary<[Node](#), System.Double>>

AlgorithmResultTuple

Implements

System.Collections.IStructuralComparable

System.Collections.IStructuralEquatable

System.IComparable

System.Runtime.CompilerServices.ITuple

Inherited Members

System.Tuple<VisualGraph.Shared.Models.Node, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, VisualGraph.Shared.Models.Node>, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, System.Double>>.System.Runtime.CompilerServices.ITuple.get_Item(System.Int32)

System.Tuple<VisualGraph.Shared.Models.Node, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, VisualGraph.Shared.Models.Node>, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, System.Double>>.Equals(System.Object)

System.Tuple<VisualGraph.Shared.Models.Node, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, VisualGraph.Shared.Models.Node>, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, System.Double>>.GetHashCode()

System.Tuple<VisualGraph.Shared.Models.Node, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, VisualGraph.Shared.Models.Node>, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, System.Double>>.System.Collections.IStructuralComparable.CompareTo(System.Object, System.Collections.IComparer)

System.Tuple<VisualGraph.Shared.Models.Node, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, VisualGraph.Shared.Models.Node>, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, System.Double>>.System.Collections.IStructuralEquatable.Equals(System.Object, System.Collections.IEqualityComparer)

System.Tuple<VisualGraph.Shared.Models.Node, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, VisualGraph.Shared.Models.Node>, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, System.Double>>.System.Collections.IStructuralEquatable.GetHashCode(System.Collections.IEqualityComparer)

System.Tuple<VisualGraph.Shared.Models.Node, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, VisualGraph.Shared.Models.Node>, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, System.Double>>.System.IComparable.CompareTo(System.Object)

System.Tuple<VisualGraph.Shared.Models.Node, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, VisualGraph.Shared.Models.Node>, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, System.Double>>.ToString()

System.Tuple<VisualGraph.Shared.Models.Node, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, VisualGraph.Shared.Models.Node>, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, System.Double>>.Item1

System.Tuple<VisualGraph.Shared.Models.Node, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, VisualGraph.Shared.Models.Node>, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, System.Double>>.Item2

System.Tuple<VisualGraph.Shared.Models.Node, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, VisualGraph.Shared.Models.Node>, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, System.Double>>.Item3

System.Tuple<VisualGraph.Shared.Models.Node, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, VisualGraph.Shared.Models.Node>, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, System.Double>>.System.Runtime.CompilerServices.ITuple.Item[System.Int32]

System.Tuple<VisualGraph.Shared.Models.Node, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, VisualGraph.Shared.Models.Node>, System.Collections.Generic.Dictionary<VisualGraph.Shared.Models.Node, System.Double>>.System.Runtime.CompilerServices.ITuple.Length

System.Object.Equals(System.Object)

System.Object.Equals(System.Object, System.Object)

System.Object.GetHashCode()

System.Object.GetType()

System.Object.MemberwiseClone()

System.Object.ReferenceEquals(System.Object, System.Object)

System.Object.ToString()

Namespace: [VisualGraph.Client.Shared.Models](#)

Assembly: VisualGraph.Client.dll

Syntax

```
public class AlgorithmResultTuple : Tuple<Node, Dictionary<Node, Node>, Dictionary<Node, double>>,
    IStructuralComparable, IStructuralEquatable, IComparable, ITuple
```

Constructors

AlgorithmResultTuple(Node, Dictionary<Node, Node>, Dictionary<Node, Double>)

Erstellt Instanz der Klasse

Declaration

```
public AlgorithmResultTuple(Node currentNode, Dictionary<Node, Node> previous, Dictionary<Node, double>
    distances)
```

Parameters

TYPE	NAME	DESCRIPTION
Node	currentNode	Knoten der aktuellen Iteration
System.Collections.Generic.Dictionary< Node , Node >	previous	Aktuelles Wörterbuch mit Vorgängern aller Knoten
System.Collections.Generic.Dictionary< Node , System.Double>	distances	Aktuelles Wörterbuch mit Kosten aller Knoten

Properties

CurrentNode

Knoten der Algorithmus Iteration

Declaration

```
public Node CurrentNode { get; }
```

Property Value

TYPE	DESCRIPTION
Node	

Distances

Aktuelles Wörterbuch mit Kosten aller Knoten.

Declaration

```
public Dictionary<Node, double> Distances { get; }
```

Property Value

TYPE	DESCRIPTION
System.Collections.Generic.Dictionary<Node, System.Double>	

Previous

Aktuelles Wörterbuch mit Vorgängern aller Knoten.

Declaration

```
public Dictionary<Node, Node> Previous { get; }
```

Property Value

TYPE	DESCRIPTION
System.Collections.Generic.Dictionary<Node, Node>	

Implements

- System.Collections.IStructuralComparable
- System.Collections.IStructuralEquatable
- System.IComparable
- System.Runtime.CompilerServices.ITuple

Class BrowserSizes

Datenstruktur für JSInteraktion Browser- Informationen

Inheritance

System.Object
BrowserSizes

Inherited Members

- System.Object.Equals(System.Object)
- System.Object.Equals(System.Object, System.Object)
- System.Object.GetHashCode()
- System.Object.GetType()
- System.Object.MemberwiseClone()
- System.Object.ReferenceEquals(System.Object, System.Object)
- System.Object.ToString()

Namespace: [VisualGraph.Client.Shared.Models](#)
Assembly: VisualGraph.Client.dll

Syntax

```
public class BrowserSizes
```

Properties

Height

Browserfensterweite

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Int32	

Width

Browserfensterhöhe

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Int32	

Class CoordinateAxis

Erstellt ein Koordinatensystem als HTML- Markup

Inheritance

System.Object
CoordinateAxis

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Client.Shared.Models](#)
Assembly: VisualGraph.Client.dll

Syntax

```
public static class CoordinateAxis
```

Fields

CoordinateSystemPadding

Verlängert die Achsen über die Knovexehülle des Graphen hinaus

Declaration

```
public static double CoordinateSystemPadding
```

Field Value

TYPE	DESCRIPTION
System.Double	

CoordinateSystemStepsize

Schritte für Achsenbeschriftung. Marker alle x Einheiten

Declaration

```
public static Vector2 CoordinateSystemStepsize
```

Field Value

TYPE	DESCRIPTION
System.Numerics.Vector2	

Properties

CoordinateAxisFontSize

Schriftgröße für Achsenbeschriftungen

Declaration

```
public static double CoordinateAxisFontSize { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Double	

CoordinateAxisMarkerHeight

Höhe der Markierungen entlang der Achsen

Declaration

```
public static double CoordinateAxisMarkerHeight { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Double	

CoordinateSystemColor

Farbe in der das Koordinatensystem dargestellt werden soll.

Declaration

```
public static string CoordinateSystemColor { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Methods

GenerateForGraphRange(Double, Double, Double, Double)

Erstellt die HTML- Struktur des Koordinatensystems

Declaration

```
public static MarkupString GenerateForGraphRange(double minX = 0, double minY = 0, double maxX = 0, double maxY = 0)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Double	minX	Kleinster X- Wert des Graphen
System.Double	minY	Kleinster Y- Wert des Graphen

TYPE	NAME	DESCRIPTION
System.Double	maxX	Größter X- Wert des Graphen
System.Double	maxY	Größter Y- Wert des Graphen

Returns

TYPE	DESCRIPTION
Microsoft.AspNetCore.Components.MarkupString	

Class SvgContainerInformation

Datenstruktur für JSInteraktion

Inheritance

System.Object
SvgContainerInformation
[SvgPanZoomInformation](#)

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Client.Shared.Models](#)

Assembly: VisualGraph.Client.dll

Syntax

```
public class SvgContainerInformation
```

Properties

OffsetLeft

Abstand des Elternelements zum linken Browserrand

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

OffsetTop

Abstand des Elternelements zum oberen Browserrand

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

ParentHeight

Höhe des Elternelements, in welchem das SVG- Element platziert ist

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

ParentWidth

Weite des Elternelements, in welchem das SVG- Element platziert ist

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

Class SvgDisplay

Diese Klasse kapselt alle Informationen für den SVG- Container in welchem Graphen gespeichert werden

Inheritance

System.Object
SvgDisplay

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Client.Shared.Models](#)
Assembly: VisualGraph.Client.dll

Syntax

```
public class SvgDisplay
```

Constructors

SvgDisplay(Double, Double, Double, Double)

Erstellt eine Instanz der Klasse

Declaration

```
public SvgDisplay(double minx, double miny, double maxx, double maxy)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Double	minx	
System.Double	miny	
System.Double	maxx	
System.Double	maxy	

Properties

ViewBox

Gibt den SVG- ViewBox String aus

Declaration

```
public string ViewBox { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Methods

UpdateDisplaySettings(SvgPanZoomInformation)

Aktualisiert die Höhe und Weite des Displays

Declaration

```
public Task<bool> UpdateDisplaySettings(SvgPanZoomInformation svgPanZoomInformation)
```

Parameters

TYPE	NAME	DESCRIPTION
SvgPanZoomInformation	svgPanZoomInformation	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<System.Boolean>	

Class SvgPanZoomInformation

Informationen zur panzoom.js instanz

Inheritance

System.Object
SvgContainerInformation
SvgPanZoomInformation

Inherited Members

SvgContainerInformation.ParentWidth
SvgContainerInformation.ParentHeight
SvgContainerInformation.OffsetLeft
SvgContainerInformation.OffsetTop
System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: VisualGraph.Client.Shared.Models

Assembly: VisualGraph.Client.dll

Syntax

```
public class SvgPanZoomInformation : SvgContainerInformation
```

Properties

CenterX

X- Kootdinate des Mittelpunkt des Containers

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

CenterY

Y- Kootdinate des Mittelpunkt des Containers

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

PanX

X- Verschiebung des Graphen innerhalb des SVG

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

PanY

Y- Verschiebung des Graphen innerhalb des SVG

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

PanZoomHeight

Höhe des panzoom.js Containers

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

PanZoomWidth

Weite des panzoom.js Containers

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

ViewBoxHeight

Höhe der SVG- Viewbox

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

ViewBoxWidth

Weite der SVG- Viewbox

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

Zoom

Zoomstufe des Graphen innerhalb des SVG

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

Namespace VisualGraph.Server

Classes

[Program](#)

[Startup](#)

Class Program

Inheritance

System.Object
Program

Inherited Members

- System.Object.Equals(System.Object)
- System.Object.Equals(System.Object, System.Object)
- System.Object.GetHashCode()
- System.Object.GetType()
- System.Object.MemberwiseClone()
- System.Object.ReferenceEquals(System.Object, System.Object)
- System.Object.ToString()

Namespace: [VisualGraph.Server](#)
Assembly: VisualGraph.Server.dll

Syntax

```
public class Program
```

Methods

CreateHostBuilder(String[])

Declaration

```
public static IHostBuilder CreateHostBuilder(string[] args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String[]	args	

Returns

TYPE	DESCRIPTION
Microsoft.Extensions.Hosting.IHostBuilder	

Main(String[])

Declaration

```
public static void Main(string[] args)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String[]	args	

Class Startup

Inheritance

System.Object
Startup

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: VisualGraph.Server
Assembly: VisualGraph.Server.dll

Syntax

```
public class Startup
```

Constructors

Startup(IConfiguration, IWebHostEnvironment)

Declaration

```
public Startup(IConfiguration configuration, IWebHostEnvironment env)
```

Parameters

TYPE	NAME	DESCRIPTION
Microsoft.Extensions.Configuration.IConfiguration	configuration	
Microsoft.AspNetCore.Hosting.IWebHostEnvironment	env	

Properties

Configuration

Declaration

```
public IConfiguration Configuration { get; }
```

Property Value

TYPE	DESCRIPTION
Microsoft.Extensions.Configuration.IConfiguration	

Methods

Configure(IApplicationBuilder, IWebHostEnvironment)

Declaration

```
public void Configure(IApplicationBuilder app, IWebHostEnvironment env)
```

Parameters

TYPE	NAME	DESCRIPTION
Microsoft.AspNetCore.Builder.IApplicationBuilder	app	
Microsoft.AspNetCore.Hosting.IWebHostEnvironment	env	

ConfigureServices(IServiceCollection)

Declaration

```
public void ConfigureServices(IServiceCollection services)
```

Parameters

TYPE	NAME	DESCRIPTION
Microsoft.Extensions.DependencyInjection.IServiceCollection	services	

Namespace VisualGraph.Server.Controllers

Classes

[AccountController](#)

Steuert Benutzer Accounts

[GraphController](#)

Übermittelt und Empfängt Graphen zu/von Clients

[SettingsController](#)

Erlaubt Clients Zugriff auf Einstellungen

Class AccountController

Steuert Benutzer Accounts

Inheritance

System.Object

Microsoft.AspNetCore.Mvc.ControllerBase

AccountController

Inherited Members

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted()

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted(System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted(System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted(System.Uri)

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted(System.Uri, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String, System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String, System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String, System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtRoute(System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtRoute(System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtRoute(System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtRoute(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtRoute(System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.BadRequest()

Microsoft.AspNetCore.Mvc.ControllerBase.BadRequest(Microsoft.AspNetCore.Mvc.ModelBinding.ModelStateDictionary)

Microsoft.AspNetCore.Mvc.ControllerBase.BadRequest(System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.Challenge()

Microsoft.AspNetCore.Mvc.ControllerBase.Challenge(Microsoft.AspNetCore.Authentication.AuthenticationProperties)

Microsoft.AspNetCore.Mvc.ControllerBase.Challenge(Microsoft.AspNetCore.Authentication.AuthenticationProperties, System.String[])

Microsoft.AspNetCore.Mvc.ControllerBase.Challenge(System.String[])

Microsoft.AspNetCore.Mvc.ControllerBase.Conflict()

Microsoft.AspNetCore.Mvc.ControllerBase.Conflict(Microsoft.AspNetCore.Mvc.ModelBinding.ModelStateDictionary)

Microsoft.AspNetCore.Mvc.ControllerBase.Conflict(System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.Content(System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.Content(System.String, Microsoft.Net.Http.Headers.MediaTypeHeaderValue)

Microsoft.AspNetCore.Mvc.ControllerBase.Content(System.String, System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.Content(System.String, System.String, System.Text.Encoding)

Microsoft.AspNetCore.Mvc.ControllerBase.Created(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.Created(System.Uri, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtAction(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtAction(System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtAction(System.String, System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtRoute(System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtRoute(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtRoute(System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.Boolean)

Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.Nullable<System.DateTimeOffset>,


```
Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.String, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.String,
System.Nullable<System.DateTimeOffset>, Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.String,
System.Nullable<System.DateTimeOffset>, Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.String, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.String,
System.Nullable<System.DateTimeOffset>, Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.String,
System.Nullable<System.DateTimeOffset>, Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.String, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.String, System.String, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.String, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.String, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.Forbid()
Microsoft.AspNetCore.Mvc.ControllerBase.Forbid(Microsoft.AspNetCore.Authentication.AuthenticationProperties)
Microsoft.AspNetCore.Mvc.ControllerBase.Forbid(Microsoft.AspNetCore.Authentication.AuthenticationProperties, System.String[])
Microsoft.AspNetCore.Mvc.ControllerBase.Forbid(System.String[])
Microsoft.AspNetCore.Mvc.ControllerBase.LocalRedirect(System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.LocalRedirectPermanent(System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.LocalRedirectPermanentPreserveMethod(System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.LocalRedirectPreserveMethod(System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.NoContent()
Microsoft.AspNetCore.Mvc.ControllerBase.NotFound()
Microsoft.AspNetCore.Mvc.ControllerBase.NotFound(System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.Ok()
Microsoft.AspNetCore.Mvc.ControllerBase.Ok(System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.PhysicalFile(System.String, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.PhysicalFile(System.String, System.String, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.PhysicalFile(System.String, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.PhysicalFile(System.String, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
```

[illegible]

Microsoft.AspNetCore.Mvc.ControllerBase.RedirectToRoutePermanent(System.String, System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.RedirectToRoutePermanent(System.String, System.Object, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.RedirectToRoutePermanent(System.String, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.RedirectToRoutePermanentPreserveMethod(System.String, System.Object, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.RedirectToRoutePreserveMethod(System.String, System.Object, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.SignIn(System.Security.Claims.ClaimsPrincipal, Microsoft.AspNetCore.Authentication.AuthenticationProperties, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.SignIn(System.Security.Claims.ClaimsPrincipal, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.SignOut(Microsoft.AspNetCore.Authentication.AuthenticationProperties, System.String[])
Microsoft.AspNetCore.Mvc.ControllerBase.SignOut(System.String[])
Microsoft.AspNetCore.Mvc.ControllerBase.StatusCode(System.Int32)
Microsoft.AspNetCore.Mvc.ControllerBase.StatusCode(System.Int32, System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync(System.Object, System.Type, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync(System.Object, System.Type, System.String, Microsoft.AspNetCore.Mvc.ModelBinding.IValueProvider, System.Func<Microsoft.AspNetCore.Mvc.ModelBinding.ModelMetadata, System.Boolean>)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String, Microsoft.AspNetCore.Mvc.ModelBinding.IValueProvider)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String, Microsoft.AspNetCore.Mvc.ModelBinding.IValueProvider, System.Func<Microsoft.AspNetCore.Mvc.ModelBinding.ModelMetadata, System.Boolean>)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String, Microsoft.AspNetCore.Mvc.ModelBinding.IValueProvider, System.Linq.Expressions.Expression<System.Func<TModel, System.Object>>[])
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String, System.Func<Microsoft.AspNetCore.Mvc.ModelBinding.ModelMetadata, System.Boolean>)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String, System.Linq.Expressions.Expression<System.Func<TModel, System.Object>>[])
Microsoft.AspNetCore.Mvc.ControllerBase.TryValidateModel(System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.TryValidateModel(System.Object, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.Unauthorized()
Microsoft.AspNetCore.Mvc.ControllerBase.Unauthorized(System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.UnprocessableEntity()
Microsoft.AspNetCore.Mvc.ControllerBase.UnprocessableEntity(Microsoft.AspNetCore.Mvc.ModelBinding.ModelStateDictionary)
Microsoft.AspNetCore.Mvc.ControllerBase.UnprocessableEntity(System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.ValidationProblem()
Microsoft.AspNetCore.Mvc.ControllerBase.ValidationProblem(Microsoft.AspNetCore.Mvc.ModelBinding.ModelStateDictionary)
Microsoft.AspNetCore.Mvc.ControllerBase.ValidationProblem(Microsoft.AspNetCore.Mvc.ValidationProblemDetails)
Microsoft.AspNetCore.Mvc.ControllerBase.ValidationProblem(System.String, System.String, System.Nullable<System.Int32>, System.String, System.String, Microsoft.AspNetCore.Mvc.ModelBinding.ModelStateDictionary)
Microsoft.AspNetCore.Mvc.ControllerBase.ControllerContext
Microsoft.AspNetCore.Mvc.ControllerBase.HttpContext
Microsoft.AspNetCore.Mvc.ControllerBase.MetadataProvider
Microsoft.AspNetCore.Mvc.ControllerBase.ModelBinderFactory
Microsoft.AspNetCore.Mvc.ControllerBase.ModelState
Microsoft.AspNetCore.Mvc.ControllerBase.ObjectValidator
Microsoft.AspNetCore.Mvc.ControllerBase.ProblemDetailsFactory
Microsoft.AspNetCore.Mvc.ControllerBase.Request

Microsoft.AspNetCore.Mvc.ControllerBase.Response
Microsoft.AspNetCore.Mvc.ControllerBase.RouteData
Microsoft.AspNetCore.Mvc.ControllerBase.Url
Microsoft.AspNetCore.Mvc.ControllerBase.User
System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Server.Controllers](#)
Assembly: VisualGraph.Server.dll

Syntax

```
[ApiController]
[Route("api/[controller]")]
[Authorize(Policy = "IsVisualGraphMember")]
public class AccountController : ControllerBase
```

Constructors

AccountController(IConfiguration)

Erstellt Instanz der Klasse

Declaration

```
public AccountController(IConfiguration config)
```

Parameters

TYPE	NAME	DESCRIPTION
Microsoft.Extensions.Configuration.IConfiguration	config	Dependency Injection Configuration

Methods

GetRoles()

Gibt alle bekannten Rollen und die entsprechenden Rollennamen zurück

Declaration

```
[HttpGet("roles")]
[AllowAnonymous]
public Task<List<string[]>> GetRoles()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<System.Collections.Generic.List<System.String[]>>	Liste mit string array aus Rollen und Rollennamen

GetUser(String)

Frägt den aktuellen Benutzer ab

Declaration

```
[AllowAnonymous]
[HttpGet("user/{username?}")]
public Task<UserModel> GetUser([FromRoute] string username)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	username	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<UserModel>	User, wenn eingeloggt. Sonst Gast Account

GetUserByName(String)

Sucht nach dem angegebenen Username und gibt den Benutzer zurück

Declaration

```
[Authorize(Policy = "IsVisualGraphAdmin")]
[HttpGet("userbyname/{username}")]
public Task<UserModel> GetUserByName([FromRoute] string username)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	username	zu suchender User

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<UserModel>	gefundenen Benutzer

GetUsernames()

Sucht nach allen registrierten Benutzern

Declaration

```
[Authorize(Policy = "IsVisualGraphAdmin")]
[HttpGet("usernames")]
public Task<List<string>> GetUsernames()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<System.Collections.Generic.List<System.String>>	Liste mit Benutzernamen

Login(UserModel)

Meldet den Benutzer an, wenn die Benutzerdaten übereinstimmen

Declaration

```
[HttpPost("login")]
[AllowAnonymous]
public Task<UserModel> Login([FromBody] UserModel userModel)
```

Parameters

TYPE	NAME	DESCRIPTION
UserModel	userModel	UserModel des anzumeldenden Benutzers

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<UserModel>	Das übermittelte Usermodel. Bei Fehlern mit Fehlermeldung

Logout()

Meldet den aktuellen Benutzer ab

Declaration

```
[HttpGet("logout")]
public Task<IActionResult> Logout()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<Microsoft.AspNetCore.Mvc.IActionResult>	

Register(UserModel)

Registriert einen Anwender

Declaration

```
[HttpPost("register")]
[Produces("application/json", new string[] { })]
[AllowAnonymous]
public Task<UserModel> Register([FromBody] UserModel userModel)
```

Parameters

TYPE	NAME	DESCRIPTION
UserModel	userModel	Usermodel mit Benutzerdaten

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<UserModel>	Das übermittelte Usermodel. Bei Fehlern mit Fehlermeldung

UpdateUser(UserUpdateModel)

Ändert die Benutzerdaten

Declaration

```
[HttpPost("update")]
[Produces("application/json", new string[]{})]
public Task<UserModel> UpdateUser([FromBody] UserUpdateModel userModel)
```

Parameters

TYPE	NAME	DESCRIPTION
UserUpdateModel	userModel	geänderter Benutzer

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<UserModel>	Das übermittelte Usermodel. Bei Fehlern mit Fehlermeldung

Class GraphController

Übermittelt und Empfängt Graphen zu/von Clients

Inheritance

System.Object

Microsoft.AspNetCore.Mvc.ControllerBase

GraphController

Inherited Members

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted()

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted(System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted(System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted(System.Uri)

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted(System.Uri, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String, System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String, System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String, System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtRoute(System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtRoute(System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtRoute(System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtRoute(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtRoute(System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.BadRequest()

Microsoft.AspNetCore.Mvc.ControllerBase.BadRequest(Microsoft.AspNetCore.Mvc.ModelBinding.ModelStateDictionary)

Microsoft.AspNetCore.Mvc.ControllerBase.BadRequest(System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.Challenge()

Microsoft.AspNetCore.Mvc.ControllerBase.Challenge(Microsoft.AspNetCore.Authentication.AuthenticationProperties)

Microsoft.AspNetCore.Mvc.ControllerBase.Challenge(Microsoft.AspNetCore.Authentication.AuthenticationProperties, System.String[])

Microsoft.AspNetCore.Mvc.ControllerBase.Challenge(System.String[])

Microsoft.AspNetCore.Mvc.ControllerBase.Conflict()

Microsoft.AspNetCore.Mvc.ControllerBase.Conflict(Microsoft.AspNetCore.Mvc.ModelBinding.ModelStateDictionary)

Microsoft.AspNetCore.Mvc.ControllerBase.Conflict(System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.Content(System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.Content(System.String, Microsoft.Net.Http.Headers.MediaTypeHeaderValue)

Microsoft.AspNetCore.Mvc.ControllerBase.Content(System.String, System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.Content(System.String, System.String, System.Text.Encoding)

Microsoft.AspNetCore.Mvc.ControllerBase.Created(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.Created(System.Uri, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtAction(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtAction(System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtAction(System.String, System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtRoute(System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtRoute(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtRoute(System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.Boolean)

Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.Nullable<System.DateTimeOffset>,


```
Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.String, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.String,
System.Nullable<System.DateTimeOffset>, Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.String,
System.Nullable<System.DateTimeOffset>, Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.String, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.String,
System.Nullable<System.DateTimeOffset>, Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.String,
System.Nullable<System.DateTimeOffset>, Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.String, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.String, System.String, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.String, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.String, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.Forbid()
Microsoft.AspNetCore.Mvc.ControllerBase.Forbid(Microsoft.AspNetCore.Authentication.AuthenticationProperties)
Microsoft.AspNetCore.Mvc.ControllerBase.Forbid(Microsoft.AspNetCore.Authentication.AuthenticationProperties, System.String[])
Microsoft.AspNetCore.Mvc.ControllerBase.Forbid(System.String[])
Microsoft.AspNetCore.Mvc.ControllerBase.LocalRedirect(System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.LocalRedirectPermanent(System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.LocalRedirectPermanentPreserveMethod(System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.LocalRedirectPreserveMethod(System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.NoContent()
Microsoft.AspNetCore.Mvc.ControllerBase.NotFound()
Microsoft.AspNetCore.Mvc.ControllerBase.NotFound(System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.Ok()
Microsoft.AspNetCore.Mvc.ControllerBase.Ok(System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.PhysicalFile(System.String, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.PhysicalFile(System.String, System.String, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.PhysicalFile(System.String, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.PhysicalFile(System.String, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
```

[illegible]

Microsoft.AspNetCore.Mvc.ControllerBase.RedirectToRoutePermanent(System.String, System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.RedirectToRoutePermanent(System.String, System.Object, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.RedirectToRoutePermanent(System.String, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.RedirectToRoutePermanentPreserveMethod(System.String, System.Object, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.RedirectToRoutePreserveMethod(System.String, System.Object, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.SignIn(System.Security.Claims.ClaimsPrincipal, Microsoft.AspNetCore.Authentication.AuthenticationProperties, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.SignIn(System.Security.Claims.ClaimsPrincipal, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.SignOut(Microsoft.AspNetCore.Authentication.AuthenticationProperties, System.String[])
Microsoft.AspNetCore.Mvc.ControllerBase.SignOut(System.String[])
Microsoft.AspNetCore.Mvc.ControllerBase.StatusCode(System.Int32)
Microsoft.AspNetCore.Mvc.ControllerBase.StatusCode(System.Int32, System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync(System.Object, System.Type, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync(System.Object, System.Type, System.String, Microsoft.AspNetCore.Mvc.ModelBinding.IValueProvider, System.Func<Microsoft.AspNetCore.Mvc.ModelBinding.ModelMetadata, System.Boolean>)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String, Microsoft.AspNetCore.Mvc.ModelBinding.IValueProvider)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String, Microsoft.AspNetCore.Mvc.ModelBinding.IValueProvider, System.Func<Microsoft.AspNetCore.Mvc.ModelBinding.ModelMetadata, System.Boolean>)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String, Microsoft.AspNetCore.Mvc.ModelBinding.IValueProvider, System.Linq.Expressions.Expression<System.Func<TModel, System.Object>>[])
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String, System.Func<Microsoft.AspNetCore.Mvc.ModelBinding.ModelMetadata, System.Boolean>)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String, System.Linq.Expressions.Expression<System.Func<TModel, System.Object>>[])
Microsoft.AspNetCore.Mvc.ControllerBase.TryValidateModel(System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.TryValidateModel(System.Object, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.Unauthorized()
Microsoft.AspNetCore.Mvc.ControllerBase.Unauthorized(System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.UnprocessableEntity()
Microsoft.AspNetCore.Mvc.ControllerBase.UnprocessableEntity(Microsoft.AspNetCore.Mvc.ModelBinding.ModelStateDictionary)
Microsoft.AspNetCore.Mvc.ControllerBase.UnprocessableEntity(System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.ValidationProblem()
Microsoft.AspNetCore.Mvc.ControllerBase.ValidationProblem(Microsoft.AspNetCore.Mvc.ModelBinding.ModelStateDictionary)
Microsoft.AspNetCore.Mvc.ControllerBase.ValidationProblem(Microsoft.AspNetCore.Mvc.ValidationProblemDetails)
Microsoft.AspNetCore.Mvc.ControllerBase.ValidationProblem(System.String, System.String, System.Nullable<System.Int32>, System.String, System.String, Microsoft.AspNetCore.Mvc.ModelBinding.ModelStateDictionary)
Microsoft.AspNetCore.Mvc.ControllerBase.ControllerContext
Microsoft.AspNetCore.Mvc.ControllerBase.HttpContext
Microsoft.AspNetCore.Mvc.ControllerBase.MetadataProvider
Microsoft.AspNetCore.Mvc.ControllerBase.ModelBinderFactory
Microsoft.AspNetCore.Mvc.ControllerBase.ModelState
Microsoft.AspNetCore.Mvc.ControllerBase.ObjectValidator
Microsoft.AspNetCore.Mvc.ControllerBase.ProblemDetailsFactory
Microsoft.AspNetCore.Mvc.ControllerBase.Request

Microsoft.AspNetCore.Mvc.ControllerBase.Response
Microsoft.AspNetCore.Mvc.ControllerBase.RouteData
Microsoft.AspNetCore.Mvc.ControllerBase.Url
Microsoft.AspNetCore.Mvc.ControllerBase.User
System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Server.Controllers](#)
Assembly: VisualGraph.Server.dll

Syntax

```
[ApiController]  
[Route("api/[controller]")]  
public class GraphController : ControllerBase
```

Constructors

GraphController(ILogger<GraphController>)

Erstellt Instanz der Klasse

Declaration

```
public GraphController(ILogger<GraphController> logger)
```

Parameters

TYPE	NAME	DESCRIPTION
Microsoft.Extensions.Logging.ILogger< GraphController >	logger	Dependency Injection ASP .Net Logger

Methods

GetGraphFileNames()

Findet alle Graphnamen

Declaration

```
[HttpGet("GetGraphFileNames")]  
public Task<IEnumerable<string>> GetGraphFileNames()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<System.Collections.Generic.IEnumerable<System.String>>	Liste mit allen Namen der gefundenen Graphen

GetGraphModel(String)

Läd Graphmodel über den Namen

Declaration

```
[HttpGet("GetGraphModel/{graphname}")]
public Task<BasicGraphModelPoco> GetGraphModel(string graphname)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	graphname	Name des zu suchenden Graphen

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<BasicGraphModelPoco>	Gefundener Graph oder null

GetGraphModels()

Gibt auf dem Server gespeicherte GraphModels zurück

Declaration

```
[HttpGet]
public Task<IEnumerable<BasicGraphModelPoco>> GetGraphModels()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<System.Collections.Generic.IEnumerable<BasicGraphModelPoco>>	Liste aller GraphModels

getWebData(String)

Läd Daten aus dem Internet

Declaration

```
[HttpGet("GetWebData")]
public Task<string> getWebData([FromQuery] string url)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	url	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<System.String>	Webinhalt als String

LoadFromWeb(String, String)

Lädt Graphen aus dem Internet

Declaration

```
[HttpGet("LoadFromWeb")]
public Task<BasicGraphToGraphMlMapping> LoadFromWeb([FromQuery] string url, [FromQuery] string name)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	url	URL des Graphen
System.String	name	Name des Geaphen

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<BasicGraphToGraphMlMapping>	Mapping der Attribute des heruntergeladenen Graphen

SaveGraph(String, BasicGraphModelPoco)

Speichert den übermittelten Graphen unter dem angegebenen Dateinamen

Declaration

```
[Authorize(Policy = "IsVisualGraphMember")]
[HttpPost("SaveGraph/{filename}")]
public Task<bool> SaveGraph([FromRoute] string filename, [FromBody] BasicGraphModelPoco graph)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	filename	Dateiname für Speicherung
BasicGraphModelPoco	graph	Graphmodel

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<System.Boolean>	true, wenn erfolgreich. Sonst false

Class SettingsController

Erlaubt Clients Zugriff auf Einstellungen

Inheritance

System.Object

Microsoft.AspNetCore.Mvc.ControllerBase

SettingsController

Inherited Members

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted()

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted(System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted(System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted(System.Uri)

Microsoft.AspNetCore.Mvc.ControllerBase.Accepted(System.Uri, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String, System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String, System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtAction(System.String, System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtRoute(System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtRoute(System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtRoute(System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtRoute(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.AcceptedAtRoute(System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.BadRequest()

Microsoft.AspNetCore.Mvc.ControllerBase.BadRequest(Microsoft.AspNetCore.Mvc.ModelBinding.ModelStateDictionary)

Microsoft.AspNetCore.Mvc.ControllerBase.BadRequest(System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.Challenge()

Microsoft.AspNetCore.Mvc.ControllerBase.Challenge(Microsoft.AspNetCore.Authentication.AuthenticationProperties)

Microsoft.AspNetCore.Mvc.ControllerBase.Challenge(Microsoft.AspNetCore.Authentication.AuthenticationProperties, System.String[])

Microsoft.AspNetCore.Mvc.ControllerBase.Challenge(System.String[])

Microsoft.AspNetCore.Mvc.ControllerBase.Conflict()

Microsoft.AspNetCore.Mvc.ControllerBase.Conflict(Microsoft.AspNetCore.Mvc.ModelBinding.ModelStateDictionary)

Microsoft.AspNetCore.Mvc.ControllerBase.Conflict(System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.Content(System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.Content(System.String, Microsoft.Net.Http.Headers.MediaTypeHeaderValue)

Microsoft.AspNetCore.Mvc.ControllerBase.Content(System.String, System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.Content(System.String, System.String, System.Text.Encoding)

Microsoft.AspNetCore.Mvc.ControllerBase.Created(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.Created(System.Uri, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtAction(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtAction(System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtAction(System.String, System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtRoute(System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtRoute(System.String, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.CreatedAtRoute(System.String, System.Object, System.Object)

Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String)

Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.Boolean)

Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.Nullable<System.DateTimeOffset>,

```
Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.String, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.String,
System.Nullable<System.DateTimeOffset>, Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.Byte[], System.String, System.String,
System.Nullable<System.DateTimeOffset>, Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.String, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.String,
System.Nullable<System.DateTimeOffset>, Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.IO.Stream, System.String, System.String,
System.Nullable<System.DateTimeOffset>, Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.String, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.String, System.String, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.String, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.File(System.String, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.Forbid()
Microsoft.AspNetCore.Mvc.ControllerBase.Forbid(Microsoft.AspNetCore.Authentication.AuthenticationProperties)
Microsoft.AspNetCore.Mvc.ControllerBase.Forbid(Microsoft.AspNetCore.Authentication.AuthenticationProperties, System.String[])
Microsoft.AspNetCore.Mvc.ControllerBase.Forbid(System.String[])
Microsoft.AspNetCore.Mvc.ControllerBase.LocalRedirect(System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.LocalRedirectPermanent(System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.LocalRedirectPermanentPreserveMethod(System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.LocalRedirectPreserveMethod(System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.NoContent()
Microsoft.AspNetCore.Mvc.ControllerBase.NotFound()
Microsoft.AspNetCore.Mvc.ControllerBase.NotFound(System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.Ok()
Microsoft.AspNetCore.Mvc.ControllerBase.Ok(System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.PhysicalFile(System.String, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.PhysicalFile(System.String, System.String, System.Boolean)
Microsoft.AspNetCore.Mvc.ControllerBase.PhysicalFile(System.String, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue)
Microsoft.AspNetCore.Mvc.ControllerBase.PhysicalFile(System.String, System.String, System.Nullable<System.DateTimeOffset>,
Microsoft.Net.Http.Headers.EntityTagHeaderValue, System.Boolean)
```


[illegible]

Microsoft.AspNetCore.Mvc.ControllerBase.RedirectToRoutePermanent(System.String, System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.RedirectToRoutePermanent(System.String, System.Object, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.RedirectToRoutePermanent(System.String, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.RedirectToRoutePermanentPreserveMethod(System.String, System.Object, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.RedirectToRoutePreserveMethod(System.String, System.Object, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.SignIn(System.Security.Claims.ClaimsPrincipal, Microsoft.AspNetCore.Authentication.AuthenticationProperties, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.SignIn(System.Security.Claims.ClaimsPrincipal, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.SignOut(Microsoft.AspNetCore.Authentication.AuthenticationProperties, System.String[])
Microsoft.AspNetCore.Mvc.ControllerBase.SignOut(System.String[])
Microsoft.AspNetCore.Mvc.ControllerBase.StatusCode(System.Int32)
Microsoft.AspNetCore.Mvc.ControllerBase.StatusCode(System.Int32, System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync(System.Object, System.Type, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync(System.Object, System.Type, System.String, Microsoft.AspNetCore.Mvc.ModelBinding.IValueProvider, System.Func<Microsoft.AspNetCore.Mvc.ModelBinding.ModelMetadata, System.Boolean>)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String, Microsoft.AspNetCore.Mvc.ModelBinding.IValueProvider)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String, Microsoft.AspNetCore.Mvc.ModelBinding.IValueProvider, System.Func<Microsoft.AspNetCore.Mvc.ModelBinding.ModelMetadata, System.Boolean>)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String, Microsoft.AspNetCore.Mvc.ModelBinding.IValueProvider, System.Linq.Expressions.Expression<System.Func<TModel, System.Object>>[])
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String, System.Func<Microsoft.AspNetCore.Mvc.ModelBinding.ModelMetadata, System.Boolean>)
Microsoft.AspNetCore.Mvc.ControllerBase.TryUpdateModelAsync<TModel>(TModel, System.String, System.Linq.Expressions.Expression<System.Func<TModel, System.Object>>[])
Microsoft.AspNetCore.Mvc.ControllerBase.TryValidateModel(System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.TryValidateModel(System.Object, System.String)
Microsoft.AspNetCore.Mvc.ControllerBase.Unauthorized()
Microsoft.AspNetCore.Mvc.ControllerBase.Unauthorized(System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.UnprocessableEntity()
Microsoft.AspNetCore.Mvc.ControllerBase.UnprocessableEntity(Microsoft.AspNetCore.Mvc.ModelBinding.ModelStateDictionary)
Microsoft.AspNetCore.Mvc.ControllerBase.UnprocessableEntity(System.Object)
Microsoft.AspNetCore.Mvc.ControllerBase.ValidationProblem()
Microsoft.AspNetCore.Mvc.ControllerBase.ValidationProblem(Microsoft.AspNetCore.Mvc.ModelBinding.ModelStateDictionary)
Microsoft.AspNetCore.Mvc.ControllerBase.ValidationProblem(Microsoft.AspNetCore.Mvc.ValidationProblemDetails)
Microsoft.AspNetCore.Mvc.ControllerBase.ValidationProblem(System.String, System.String, System.Nullable<System.Int32>, System.String, System.String, Microsoft.AspNetCore.Mvc.ModelBinding.ModelStateDictionary)
Microsoft.AspNetCore.Mvc.ControllerBase.ControllerContext
Microsoft.AspNetCore.Mvc.ControllerBase.HttpContext
Microsoft.AspNetCore.Mvc.ControllerBase.MetadataProvider
Microsoft.AspNetCore.Mvc.ControllerBase.ModelBinderFactory
Microsoft.AspNetCore.Mvc.ControllerBase.ModelState
Microsoft.AspNetCore.Mvc.ControllerBase.ObjectValidator
Microsoft.AspNetCore.Mvc.ControllerBase.ProblemDetailsFactory
Microsoft.AspNetCore.Mvc.ControllerBase.Request

Microsoft.AspNetCore.Mvc.ControllerBase.Response
Microsoft.AspNetCore.Mvc.ControllerBase.RouteData
Microsoft.AspNetCore.Mvc.ControllerBase.Url
Microsoft.AspNetCore.Mvc.ControllerBase.User
System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Server.Controllers](#)
Assembly: VisualGraph.Server.dll

Syntax

```
[Route("api/[controller]")]
[ApiController]
public class SettingsController : ControllerBase
```

Constructors

SettingsController(ILogger<SettingsController>)

Erstellt Instanz der Klasse

Declaration

```
public SettingsController(ILogger<SettingsController> logger)
```

Parameters

TYPE	NAME	DESCRIPTION
Microsoft.Extensions.Logging.ILogger< SettingsController >	logger	

Methods

GetGraphStyle(String)

Gibt die GraphStyleParameter aus

Declaration

```
[HttpGet("GetGraphStyle/{username?}")]
public Task<GraphStyleParametersPOCO> GetGraphStyle(string username = "")
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	username	Benutzer für den das Styling abgefragt werden soll

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task< GraphStyleParametersPOCO >	

Namespace VisualGraph.Server.Pages

Classes

[HelpModel](#)

Allgemeine Hilfeseite

[HilfeDijkstraModel](#)

Dijkstra Hilfeseite

Class HelpModel

Allgemeine Hilfeseite

Inheritance

System.Object

Microsoft.AspNetCore.Mvc.RazorPages.PageModel

HelpModel

Implements

Microsoft.AspNetCore.Mvc.Filters.IAsyncPageFilter

Microsoft.AspNetCore.Mvc.Filters.IPageFilter

Microsoft.AspNetCore.Mvc.Filters.IFilterMetadata

Inherited Members

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.BadRequest()

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.BadRequest(Microsoft.AspNetCore.Mvc.ModelBinding.ModelStateDictionary)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.BadRequest(System.Object)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Challenge()

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Challenge(Microsoft.AspNetCore.Authentication.AuthenticationProperties)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Challenge(Microsoft.AspNetCore.Authentication.AuthenticationProperties, System.String[])

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Challenge(System.String[])

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Content(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Content(System.String, Microsoft.Net.Http.Headers.MediaTypeHeaderValue)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Content(System.String, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Content(System.String, System.String, System.Text.Encoding)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.File(System.Byte[], System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.File(System.Byte[], System.String, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.File(System.IO.Stream, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.File(System.IO.Stream, System.String, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.File(System.String, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.File(System.String, System.String, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Forbid()

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Forbid(Microsoft.AspNetCore.Authentication.AuthenticationProperties)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Forbid(Microsoft.AspNetCore.Authentication.AuthenticationProperties, System.String[])

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Forbid(System.String[])

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.LocalRedirect(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.LocalRedirectPermanent(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.LocalRedirectPermanentPreserveMethod(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.LocalRedirectPreserveMethod(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.NotFound()

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.NotFound(System.Object)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.OnPageHandlerExecuted(Microsoft.AspNetCore.Mvc.Filters.PageHandlerExecutedContext)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.OnPageHandlerExecuting(Microsoft.AspNetCore.Mvc.Filters.PageHandlerExecutingContext)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.OnPageHandlerExecutionAsync(Microsoft.AspNetCore.Mvc.Filters.PageHandlerExecutingContext,

Microsoft.AspNetCore.Mvc.Filters.PageHandlerExecutionDelegate)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.OnPageHandlerSelected(Microsoft.AspNetCore.Mvc.Filters.PageHandlerSelectedContext)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.OnPageHandlerSelectionAsync(Microsoft.AspNetCore.Mvc.Filters.PageHandlerSelectedContext)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Page()

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Partial(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Partial(System.String, System.Object)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.PhysicalFile(System.String, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.PhysicalFile(System.String, System.String, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Redirect(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.RedirectPermanent(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.RedirectPermanentPreserveMethod(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.RedirectPreserveMethod(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.RedirectToAction(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.RedirectToAction(System.String, System.Object)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.RedirectToAction(System.String, System.String)

[illegible]

System.Boolean>)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.TryUpdateModelAsync<TModel>(TModel, System.String, Microsoft.AspNetCore.Mvc.ModelBinding.IValueProvider, System.Linq.Expressions.Expression<System.Func<TModel, System.Object>> > [])

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.TryUpdateModelAsync<TModel>(TModel, System.String, System.Func<Microsoft.AspNetCore.Mvc.ModelBinding.ModelMetadata, System.Boolean>)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.TryUpdateModelAsync<TModel>(TModel, System.String, System.Linq.Expressions.Expression<System.Func<TModel, System.Object>> > [])

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.TryValidateModel(System.Object)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.TryValidateModel(System.Object, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Unauthorized()

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.ViewComponent(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.ViewComponent(System.String, System.Object)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.ViewComponent(System.Type)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.ViewComponent(System.Type, System.Object)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.HttpContext

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.MetadataProvider

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.ModelState

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.PageContext

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Request

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Response

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.RouteData

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.TempData

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Url

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.User

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.ViewData

System.Object.Equals(System.Object)

System.Object.Equals(System.Object, System.Object)

System.Object.GetHashCode()

System.Object.GetType()

System.Object.MemberwiseClone()

System.Object.ReferenceEquals(System.Object, System.Object)

System.Object.ToString()

Namespace: [VisualGraph.Server.Pages](#)

Assembly: VisualGraph.Server.dll

Syntax

```
public class HelpModel : PageModel, IAsyncPageFilter, IPageFilter, IFilterMetadata
```

Methods

OnGet()

Declaration

```
public void OnGet()
```

Implements

Microsoft.AspNetCore.Mvc.Filters.IAsyncPageFilter

Microsoft.AspNetCore.Mvc.Filters.IPageFilter

Microsoft.AspNetCore.Mvc.Filters.IFilterMetadata

Class HilfeDijkstraModel

Dijkstra Hilfeseite

Inheritance

System.Object

Microsoft.AspNetCore.Mvc.RazorPages.PageModel

HilfeDijkstraModel

Implements

Microsoft.AspNetCore.Mvc.Filters.IAsyncPageFilter

Microsoft.AspNetCore.Mvc.Filters.IPageFilter

Microsoft.AspNetCore.Mvc.Filters.IFilterMetadata

Inherited Members

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.BadRequest()

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.BadRequest(Microsoft.AspNetCore.Mvc.ModelBinding.ModelStateDictionary)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.BadRequest(System.Object)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Challenge()

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Challenge(Microsoft.AspNetCore.Authentication.AuthenticationProperties)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Challenge(Microsoft.AspNetCore.Authentication.AuthenticationProperties, System.String[])

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Challenge(System.String[])

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Content(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Content(System.String, Microsoft.Net.Http.Headers.MediaTypeHeaderValue)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Content(System.String, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Content(System.String, System.String, System.Text.Encoding)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.File(System.Byte[], System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.File(System.Byte[], System.String, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.File(System.IO.Stream, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.File(System.IO.Stream, System.String, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.File(System.String, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.File(System.String, System.String, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Forbid()

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Forbid(Microsoft.AspNetCore.Authentication.AuthenticationProperties)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Forbid(Microsoft.AspNetCore.Authentication.AuthenticationProperties, System.String[])

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Forbid(System.String[])

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.LocalRedirect(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.LocalRedirectPermanent(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.LocalRedirectPermanentPreserveMethod(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.LocalRedirectPreserveMethod(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.NotFound()

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.NotFound(System.Object)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.OnPageHandlerExecuted(Microsoft.AspNetCore.Mvc.Filters.PageHandlerExecutedContext)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.OnPageHandlerExecuting(Microsoft.AspNetCore.Mvc.Filters.PageHandlerExecutingContext)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.OnPageHandlerExecutionAsync(Microsoft.AspNetCore.Mvc.Filters.PageHandlerExecutingContext,

Microsoft.AspNetCore.Mvc.Filters.PageHandlerExecutionDelegate)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.OnPageHandlerSelected(Microsoft.AspNetCore.Mvc.Filters.PageHandlerSelectedContext)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.OnPageHandlerSelectionAsync(Microsoft.AspNetCore.Mvc.Filters.PageHandlerSelectedContext)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Page()

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Partial(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Partial(System.String, System.Object)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.PhysicalFile(System.String, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.PhysicalFile(System.String, System.String, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Redirect(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.RedirectPermanent(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.RedirectPermanentPreserveMethod(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.RedirectPreserveMethod(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.RedirectToAction(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.RedirectToAction(System.String, System.Object)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.RedirectToAction(System.String, System.String)

[illegible]

System.Boolean>)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.TryUpdateModelAsync<TModel>(TModel, System.String, Microsoft.AspNetCore.Mvc.ModelBinding.IValueProvider, System.Linq.Expressions.Expression<System.Func<TModel, System.Object>> > [])

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.TryUpdateModelAsync<TModel>(TModel, System.String, System.Func<Microsoft.AspNetCore.Mvc.ModelBinding.ModelMetadata, System.Boolean>)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.TryUpdateModelAsync<TModel>(TModel, System.String, System.Linq.Expressions.Expression<System.Func<TModel, System.Object>> > [])

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.TryValidateModel(System.Object)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.TryValidateModel(System.Object, System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Unauthorized()

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.ViewComponent(System.String)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.ViewComponent(System.String, System.Object)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.ViewComponent(System.Type)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.ViewComponent(System.Type, System.Object)

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.HttpContext

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.MetadataProvider

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.ModelState

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.PageContext

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Request

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Response

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.RouteData

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.TempData

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.Url

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.User

Microsoft.AspNetCore.Mvc.RazorPages.PageModel.ViewData

System.Object.Equals(System.Object)

System.Object.Equals(System.Object, System.Object)

System.Object.GetHashCode()

System.Object.GetType()

System.Object.MemberwiseClone()

System.Object.ReferenceEquals(System.Object, System.Object)

System.Object.ToString()

Namespace: [VisualGraph.Server.Pages](#)

Assembly: VisualGraph.Server.dll

Syntax

```
public class HilfeDijkstraModel : PageModel, IAsyncPageFilter, IPageFilter, IFilterMetadata
```

Methods

OnGet()

Declaration

```
public void OnGet()
```

Implements

Microsoft.AspNetCore.Mvc.Filters.IAsyncPageFilter

Microsoft.AspNetCore.Mvc.Filters.IPageFilter

Microsoft.AspNetCore.Mvc.Filters.IFilterMetadata

Namespace VisualGraph.Server.Providers

Classes

[GraphFactory](#)

Konvertiert und Generiert Graphen

[SettingsFileProvider](#)

Verwaltet Settings- Dateien

[UserProvider](#)

Verwaltet xml- Benutzerdateien

Class GraphFactory

Konvertiert und Generiert Graphen

Inheritance

System.Object
GraphFactory

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Server.Providers](#)
Assembly: VisualGraph.Server.dll

Syntax

```
public static class GraphFactory
```

Methods

ConvertToBasicGraph(IGraph)

Erstellt BasicGraphModel aus Blueprints IGraph

Declaration

```
public static BasicGraphModel ConvertToBasicGraph(IGraph iGraph)
```

Parameters

TYPE	NAME	DESCRIPTION
Frontenac.Blueprints.IGraph	iGraph	Blueprints Graph

Returns

TYPE	DESCRIPTION
BasicGraphModel	BasicGraphModel von IGraph

CreateNewGraphModel()

Erstellt neues Graphmodel mit 2 Knoten

Declaration

```
public static BasicGraphModel CreateNewGraphModel()
```

Returns

TYPE	DESCRIPTION
BasicGraphModel	Neuer Graph

CreateRandomGraph(String, Int32, Int32, Double, Double)

Erstellt einen Zufallsgraph

Declaration

```
public static BasicGraphModel CreateRandomGraph(string Graphname, int nodeCount, int edgeCount = 35, double UpperBound = 50, double LowerBound = -50)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	Graphname	Name des neuen Graphen
System.Int32	nodeCount	Anzahl der Knoten
System.Int32	edgeCount	Anzahl der Kanten
System.Double	UpperBound	Max Position Wert
System.Double	LowerBound	Min Position Wert

Returns

TYPE	DESCRIPTION
BasicGraphModel	Zufallsgraph

Class SettingsFileProvider

Verwaltet Settings- Dateien

Inheritance

System.Object
SettingsFileProvider

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Server.Providers](#)

Assembly: VisualGraph.Server.dll

Syntax

```
public static class SettingsFileProvider
```

Methods

GetGraphStyleParameters(String)

Sucht nach Beutzereinstellungen

Declaration

```
public static Task<GraphStyleParametersPOCO> GetGraphStyleParameters(string user = "")
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	user	Benutzername

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task< GraphStyleParametersPOCO >	gibt benutzerdefinierte oder globale Einstellungen aus

Class UserProvider

Verwaltet xml- Benutzerdateien

Inheritance

System.Object
UserProvider

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: VisualGraph.Server.Providers
Assembly: VisualGraph.Server.dll

Syntax

```
public class UserProvider
```

Constructors

UserProvider(String)

Erstellt Instanz der Klasse und das Benutzer- Verzeichnis

Declaration

```
public UserProvider(string userdir = "users")
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	userdir	Verzeichnis in welchem die Anwender gespeichert werden sollen

Methods

ChangePassword(UserModel, String)

Ändert das Passwort

Declaration

```
public Task<UserModel> ChangePassword(UserModel userModel, string password)
```

Parameters

TYPE	NAME	DESCRIPTION
UserModel	userModel	
System.String	password	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<UserModel>	Eingegebener User

FindUser(String)

Sucht nach Benutzern

Declaration

```
public Task<UserModel> FindUser(string username)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	username	zu findender Benutzername

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<UserModel>	gefundenen User

GetUsernames()

Frägt alle Usernamen ab

Declaration

```
public Task<List<string>> GetUsernames()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<System.Collections.Generic.List<System.String>>	Liste aller Usernames

RandomString(Int32)

Erstellt eine Zufällige String ID

Declaration

```
public static string RandomString(int length = 10)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Int32	length	Länge der Zeichenfolge

Returns

TYPE	DESCRIPTION
System.String	Zufälliger String

RegisterUser(UserModel)

Erstellt neue Benutzerdatei

Declaration

```
public Task<UserModel> RegisterUser(UserModel userModel)
```

Parameters

TYPE	NAME	DESCRIPTION
UserModel	userModel	Model des zu erstellenden Users

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<UserModel>	Model des erstellten Users

Namespace VisualGraph.Server.Shared

Classes

[NavLinkExtension](#)

Erweiterung für Navigationslinks in Menüs für Untermenüs

[VGAppSettings](#)

VisualGraphAppSettings Klasse. Diese kapselt alle relevanten Einstellung und wird beim Start der Anwendung Initialisiert

Class NavLinkExtension

Erweiterung für Navigationslinks in Menüs für Untermenüs

Inheritance

System.Object
Microsoft.AspNetCore.Components.ComponentBase
Microsoft.AspNetCore.Components.Routing.NavLink
NavLinkExtension

Implements

Microsoft.AspNetCore.Components.IComponent
Microsoft.AspNetCore.Components.IHandleEvent
Microsoft.AspNetCore.Components.IHandleAfterRender
System.IDisposable

Inherited Members

Microsoft.AspNetCore.Components.Routing.NavLink.OnParametersSet()
Microsoft.AspNetCore.Components.Routing.NavLink.Dispose()
Microsoft.AspNetCore.Components.Routing.NavLink.ActiveClass
Microsoft.AspNetCore.Components.Routing.NavLink.AdditionalAttributes
Microsoft.AspNetCore.Components.Routing.NavLink.CssClass
Microsoft.AspNetCore.Components.Routing.NavLink.ChildContent
Microsoft.AspNetCore.Components.Routing.NavLink.Match
Microsoft.AspNetCore.Components.ComponentBase.OnInitializedAsync()
Microsoft.AspNetCore.Components.ComponentBase.OnParametersSetAsync()
Microsoft.AspNetCore.Components.ComponentBase.StateHasChanged()
Microsoft.AspNetCore.Components.ComponentBase.ShouldRender()
Microsoft.AspNetCore.Components.ComponentBase.OnAfterRender(System.Boolean)
Microsoft.AspNetCore.Components.ComponentBase.OnAfterRenderAsync(System.Boolean)
Microsoft.AspNetCore.Components.ComponentBase.InvokeAsync(System.Action)
Microsoft.AspNetCore.Components.ComponentBase.InvokeAsync(System.Func<System.Threading.Tasks.Task>)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IComponent.Attach(Microsoft.AspNetCore.Components.RenderHandle)
Microsoft.AspNetCore.Components.ComponentBase.SetParametersAsync(Microsoft.AspNetCore.Components.ParameterView)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IHandleEvent.HandleEventAsync(Microsoft.AspNetCore.Components.EventCallbackWorkItem, System.Object)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IHandleAfterRender.OnAfterRenderAsync()
System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Server.Shared](#)

Assembly: VisualGraph.Server.dll

Syntax

```
public class NavLinkExtension : NavLink, IComponent, IHandleEvent, IHandleAfterRender, IDisposable
```

Constructors

NavLinkExtension()

Erstellt Instanz der Klasse

Declaration

```
public NavLinkExtension()
```

Properties

Icon

Das Symbol für den Menüeintrag

Declaration

```
[Parameter]  
public string Icon { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

IsSubmenu

Ist dies ein Submenüeintrag

Declaration

```
[Parameter]
public bool IsSubmenu { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Boolean	

ListItemClass

HTML LI- Element Klasse

Declaration

```
[Parameter]
public string ListItemClass { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Text

Der Text für den Menüeintrag

Declaration

```
[Parameter]
public string Text { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Methods

BuildRenderTree(RenderTreeBuilder)

Erstellt das zu rendernde Element

Declaration

```
protected override void BuildRenderTree(RenderTreeBuilder builder)
```

Parameters

TYPE	NAME	DESCRIPTION
Microsoft.AspNetCore.Components.Rendering.RenderTreeBuilder	builder	

Overrides

Microsoft.AspNetCore.Components.Routing.NavLink.BuildRenderTree(Microsoft.AspNetCore.Components.Rendering.RenderTreeBuilder)

OnInitialized()

Setzt die default Aktiv- Klasse

Declaration

```
protected override void OnInitialized()
```

Overrides

Microsoft.AspNetCore.Components.Routing.NavLink.OnInitialized()

Implements

- Microsoft.AspNetCore.Components.IComponent
- Microsoft.AspNetCore.Components.IHandleEvent
- Microsoft.AspNetCore.Components.IHandleAfterRender
- System.IDisposable

Class VGAppSettings

VisualGraphAppSettings Klasse. Diese kapselt alle relevanten Einstllung und wird beim Start der Anwendung Initialisiert

Inheritance

System.Object
VGAppSettings

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Server.Shared](#)
Assembly: VisualGraph.Server.dll

Syntax

```
public static class VGAppSettings
```

Properties

AdminRole

Name für die Admin- Rolle

Declaration

```
public static string AdminRole { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

BaseAddress

Anwendungs- Url

Declaration

```
public static string BaseAddress { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

HttpPort

HttpPort auf den der Server hört

Declaration

```
public static int HttpPort { get; }
```

Property Value

TYPE	DESCRIPTION
System.Int32	

HttpsPort

HttpsPort auf den der Server hört

Declaration

```
public static int HttpsPort { get; }
```

Property Value

TYPE	DESCRIPTION
System.Int32	

MemberRole

Name für die Member- Rolle

Declaration

```
public static string MemberRole { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

RemoteRequestProxy

Proxy falls der Server diese zum Laden von Websites benötigt

Declaration

```
public static string RemoteRequestProxy { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

SuperUserRole

Name für die SuperUser- Rolle

Declaration

```
public static string SuperUserRole { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Methods

InitFromConfiguration(IConfiguration)

Initialisiert die Klasse mit Werten aus der ASP .Net Konfiguration

Declaration

```
public static void InitFromConfiguration(IConfiguration configuration)
```

Parameters

TYPE	NAME	DESCRIPTION
Microsoft.Extensions.Configuration(IConfiguration)	configuration	

Namespace VisualGraph.Shared

Classes

[GraphFactory](#)

Konvertiert und Generiert Graphen

[GraphWebloader](#)

Lädt Graphen aus dem Internet

[SVGHelper](#)

Hilfsklasse um SVG- Elemente zu erzeugen

Class GraphFactory

Konvertiert und Generiert Graphen

Inheritance

System.Object
GraphFactory

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Shared](#)
Assembly: VisualGraph.Shared.dll

Syntax

```
public static class GraphFactory
```

Methods

ConvertToBasicGraph(IGraph)

Erstellt BasicGraphModel aus Blueprints IGraph

Declaration

```
public static BasicGraphModel ConvertToBasicGraph(IGraph iGraph)
```

Parameters

TYPE	NAME	DESCRIPTION
Frontenac.Blueprints.IGraph	iGraph	Blueprints Graph

Returns

TYPE	DESCRIPTION
BasicGraphModel	BasicGraphModel von IGraph

CreateNewGraphModel()

Erstellt neues Graphmodel mit 2 Knoten

Declaration

```
public static BasicGraphModel CreateNewGraphModel()
```

Returns

TYPE	DESCRIPTION
BasicGraphModel	Neuer Graph

CreateRandomGraph(String, Int32, Int32, Double, Double)

Erstellt einen Zufallsgraph

Declaration

```
public static BasicGraphModel CreateRandomGraph(string Graphname, int nodeCount, int edgeCount = 35, double UpperBound = 50, double LowerBound = -50)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	Graphname	Name des neuen Graphen
System.Int32	nodeCount	Anzahl der Knoten
System.Int32	edgeCount	Anzahl der Kanten
System.Double	UpperBound	Max Position Wert
System.Double	LowerBound	Min Position Wert

Returns

TYPE	DESCRIPTION
BasicGraphModel	Zufallsgraph

Class GraphWebloader

Lädt Graphen aus dem Internet

Inheritance

System.Object
GraphWebloader

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Shared](#)
Assembly: VisualGraph.Shared.dll

Syntax

```
public static class GraphWebloader
```

Methods

LoadBasicGraphFromUrl(String, String)

Extrahiert wichtige Daten aus einer Zeichenkette und erstellt ein Graph Model daraus

Declaration

```
public static Task<BasicGraphToGraphMlMapping> LoadBasicGraphFromUrl(string graphstring, string graphname)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	graphstring	Graph als Zeichenkette
System.String	graphname	Name für das neue Model

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task< BasicGraphToGraphMlMapping >	

Class SVGHelper

Hilfsklasse um SVG- Elemente zu erzeugen

Inheritance

System.Object
SVGHelper

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: VisualGraph.Shared
Assembly: VisualGraph.Shared.dll

Syntax

```
public static class SVGHelper
```

Methods

Line(Double, Double, Double, Double, String, Double)

Erzeugt eine Linie

Declaration

```
public static string Line(double x1, double y1, double x2, double y2, string stroke = "black", double  
strokewidth = 0.1)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Double	x1	X- Von
System.Double	y1	Y- Von
System.Double	x2	X- Nach
System.Double	y2	Y- Nach
System.String	stroke	Linienfarbe (HTML-farbe (Text, rgb(), rgba(), hex))
System.Double	strokewidth	

Returns

TYPE	DESCRIPTION
System.String	

Text(Double, Double, String, Double, String)

Erstellt einen SVG- Text

Declaration

```
public static string Text(double x, double y, string text, double fontsize = 1, string color = "black")
```

Parameters

TYPE	NAME	DESCRIPTION
System.Double	x	Position- X
System.Double	y	Position- Y
System.String	text	Darzustellender Text
System.Double	fontsize	Schriftgröße
System.String	color	Textfarbe

Returns

TYPE	DESCRIPTION
System.String	

Namespace VisualGraph.Shared.Components

Classes

[ContextMenu](#)

Basisklasse für Kontext- Menüs

Class ContextMenu

Basisklasse für Kontext- Menüs

Inheritance

System.Object
Microsoft.AspNetCore.Components.ComponentBase
ContextMenu

Implements

Microsoft.AspNetCore.Components.IComponent
Microsoft.AspNetCore.Components.IHandleEvent
Microsoft.AspNetCore.Components.IHandleAfterRender

Inherited Members

Microsoft.AspNetCore.Components.ComponentBase.BuildRenderTree(Microsoft.AspNetCore.Components.Rendering.RenderTreeBuilder)
Microsoft.AspNetCore.Components.ComponentBase.OnInitialized()
Microsoft.AspNetCore.Components.ComponentBase.OnInitializedAsync()
Microsoft.AspNetCore.Components.ComponentBase.OnParametersSet()
Microsoft.AspNetCore.Components.ComponentBase.OnParametersSetAsync()
Microsoft.AspNetCore.Components.ComponentBase.StateHasChanged()
Microsoft.AspNetCore.Components.ComponentBase.ShouldRender()
Microsoft.AspNetCore.Components.ComponentBase.OnAfterRender(System.Boolean)
Microsoft.AspNetCore.Components.ComponentBase.OnAfterRenderAsync(System.Boolean)
Microsoft.AspNetCore.Components.ComponentBase.InvokeAsync(System.Action)
Microsoft.AspNetCore.Components.ComponentBase.InvokeAsync(System.Func<System.Threading.Tasks.Task>)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IComponent.Attach(Microsoft.AspNetCore.Components.RenderHandle)
Microsoft.AspNetCore.Components.ComponentBase.SetParametersAsync(Microsoft.AspNetCore.Components.ParameterView)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IHandleEvent.HandleEventAsync(Microsoft.AspNetCore.Components.EventCallbackWorkItem, System.Object)
Microsoft.AspNetCore.Components.ComponentBase.Microsoft.AspNetCore.Components.IHandleAfterRender.OnAfterRenderAsync()
System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: VisualGraph.Shared.Components

Assembly: VisualGraph.Shared.dll

Syntax

```
public class ContextMenu : ComponentBase, IComponent, IHandleEvent, IHandleAfterRender
```

Fields

visible

Gibt an ob das Menü sichtbar ist

Declaration

```
protected bool visible
```

Field Value

TYPE	DESCRIPTION
System.Boolean	

Properties

IsVisible

Gibt an ob das Menü sichtbar ist

Declaration

```
public bool IsVisible { get; }
```

Property Value

TYPE	DESCRIPTION
System.Boolean	

PosX

Position X wo das Menü angezeigt werden soll

Declaration

```
[Parameter]
public double PosX { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Double	

PosY

Position Y wo das Menü angezeigt werden soll

Declaration

```
[Parameter]
public double PosY { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Double	

Methods

Show()

Blendet das Menü ein oder aus.

Declaration

```
public void Show()
```

Implements

- Microsoft.AspNetCore.Components.IComponent
- Microsoft.AspNetCore.Components.IHandleEvent
- Microsoft.AspNetCore.Components.IHandleAfterRender

Namespace VisualGraph.Shared.Models

Classes

[AttributeMappings](#)

Mappings zwischen aus Web geladenem Graphen und BasicGraphModels Diese Klasse stellt ein Dictionary dar, welches für die Attribute von Knoten und Kanten des BasicGraphModels je einen String mit dem entsprechenden Attributnamen zuweisen lässt

[BasicGraphModel](#)

Stellt den zu Rendernden Graphen dar

[BasicGraphModelPoco](#)

Model Klasse für API- Aufrufe/Antworten

[BasicGraphToGraphMIMapping](#)

Führt Attribute von Online- Graphen mit BasicGraphModels zusammen

[Edge](#)

Kapselt Daten von Kanten

[GraphStyleParameters](#)

Steuert die Darstellung der Graphen

[GraphStyleParametersPOCO](#)

POCO Klasse für GraphStyleParameters. Kopie der GraphStyleParameters ohne Lambda- Ausdrücke

[Node](#)

Diese Klasse stellt die Knoten im BasicGraphModel dar

[NodePoco](#)

POCO Klasse für die JSON- Serialisierung von Nodes/Graphen

[Point2](#)

Vector2 Alternative Dokumentation siehe System.Numerics.Vector2

[UserModel](#)

Kapselt alle Informationen/Daten zum Benutzer

[UserUpdateModel](#)

Kapselt Informationen/ Daten zum bearbeiteten User.

Class AttributeMappings

Mappings zwischen aus Web geladenem Graphen und BasicGraphModels Diese Klasse stellt ein Dictionary dar, welches für die Attribute von Knoten und Kanten des BasicGraphModels je einen String mit dem entsprechenden Attributnamen zuweisen lässt

Inheritance

System.Object

System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>

AttributeMappings

Implements

System.Collections.Generic.IDictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>

System.Collections.Generic.ICollection<System.Collections.Generic.KeyValuePair<System.String,

System.Collections.Generic.Dictionary<System.String, System.String>>>

System.Collections.Generic.IReadOnlyDictionary<System.String, System.Collections.Generic.Dictionary<System.String,

System.String>>

System.Collections.Generic.IReadOnlyCollection<System.Collections.Generic.KeyValuePair<System.String,

System.Collections.Generic.Dictionary<System.String, System.String>>>

System.Collections.Generic.IEnumerable<System.Collections.Generic.KeyValuePair<System.String,

System.Collections.Generic.Dictionary<System.String, System.String>>>

System.Collections.IDictionary

System.Collections.ICollection

System.Collections.IEnumerable

System.Runtime.Serialization.IDeserializationCallback

System.Runtime.Serialization.ISerializable

Inherited Members

System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>.System.Collections.IDictionary.get_Item(System.Object)

System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>.System.Collections.IDictionary.set_Item(System.Object, System.Object)

System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>.Add(System.String, System.Collections.Generic.Dictionary<System.String, System.String>)

System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>.Clear()

System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>.ContainsKey(System.String)

System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>.ContainsValue(System.Collections.Generic.Dictionary<System.String, System.String>)

System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>.EnsureCapacity(System.Int32)

System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>.GetEnumerator()

System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>.GetObjectData(System.Runtime.Serialization.SerializationInfo, System.Runtime.Serialization.StreamingContext)

System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>.OnDeserialization(System.Object)

System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>.Remove(System.String)

System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>.Remove(System.String, System.Collections.Generic.Dictionary<System.String, System.String>)

System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>.System.Collections.Generic.ICollection<System.Collections.Generic.KeyValuePair<System.String,

[illegible]

System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>>.System.Collections.Generic.IDictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>>.Keys
 System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>>.System.Collections.Generic.IDictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>>.Values
 System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>>.System.Collections.Generic.IReadOnlyDictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>>.Keys
 System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>>.System.Collections.Generic.IReadOnlyDictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>>.Values
 System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>>.System.Collections.ICollection.IsSynchronized
 System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>>.System.Collections.ICollection.SyncRoot
 System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>>.System.Collections.IDictionary.IsFixedSize
 System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>>.System.Collections.IDictionary.IsReadOnly
 System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>>.System.Collections.IDictionary.Item[System.Object]
 System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>>.System.Collections.IDictionary.Keys
 System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>>.System.Collections.IDictionary.Values
 System.Collections.Generic.Dictionary<System.String, System.Collections.Generic.Dictionary<System.String, System.String>>>.Values
 System.Object.Equals(System.Object)
 System.Object.Equals(System.Object, System.Object)
 System.Object.GetHashCode()
 System.Object.GetType()
 System.Object.MemberwiseClone()
 System.Object.ReferenceEquals(System.Object, System.Object)
 System.Object.ToString()

Namespace: [VisualGraph.Shared.Models](#)

Assembly: VisualGraph.Shared.dll

Syntax

```
public class AttributeMappings : Dictionary<string, Dictionary<string, string>>, IDictionary<string, Dictionary<string, string>>, ICollection<KeyValuePair<string, Dictionary<string, string>>>, IReadOnlyDictionary<string, Dictionary<string, string>>, IReadOnlyCollection<KeyValuePair<string, Dictionary<string, string>>>, IEnumerable<KeyValuePair<string, Dictionary<string, string>>>, IDictionary, ICollection, IEnumerable, IDeserializationCallback, ISerializable
```

Constructors

AttributeMappings()

Erstellt Instanz der Klasse mit Wörterbüchern für Attribute des BasicGraphModels

Declaration

```
public AttributeMappings()
```

Implements

System.Collections.Generic.IDictionary<TKey, TValue>

System.Collections.Generic ICollection<T>

System.Collections.Generic.IReadOnlyDictionary<TKey, TValue>

System.Collections.Generic.IReadOnlyCollection<T>

System.Collections.Generic.IEnumerable<T>

System.Collections.IDictionary

System.Collections.ICollection

System.Collections.IEnumerable

System.Runtime.Serialization.IDeserializationCallback

System.Runtime.Serialization.ISerializable

Class BasicGraphModel

Stellt den zu Rendernden Graphen dar

Inheritance

System.Object
BasicGraphModel
[BasicGraphModelPoco](#)

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Shared.Models](#)

Assembly: VisualGraph.Shared.dll

Syntax

```
public class BasicGraphModel
```

Constructors

BasicGraphModel()

Erstellt eine neue Instanz der Klasse

Declaration

```
public BasicGraphModel()
```

BasicGraphModel(BasicGraphModelPoco)

Erstellt ein BasicGraphModel aus einer API- Antwort

Declaration

```
public BasicGraphModel(BasicGraphModelPoco graph)
```

Parameters

TYPE	NAME	DESCRIPTION
BasicGraphModelPoco	graph	

Properties

ActiveEdge

Aktive Kante

Declaration

```
[JsonIgnore]  
public Edge ActiveEdge { get; }
```

Property Value

TYPE	DESCRIPTION
Edge	

ActiveNode

Aktiver Knoten

Declaration

```
[JsonIgnore]
public Node ActiveNode { get; }
```

Property Value

TYPE	DESCRIPTION
Node	

ConvexHull

Konvexe Hülle des Graphen

Declaration

```
[JsonIgnore]
public Vector2[] ConvexHull { get; }
```

Property Value

TYPE	DESCRIPTION
System.Numerics.Vector2[]	

Edges

Kanten

Declaration

```
public List<Edge> Edges { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Collections.Generic.List<Edge>	

IsDirected

Ist gerichteter Graph

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Boolean	

IsMultigraph

Ist Multi- Graph

Declaration

```
public bool IsMultigraph { get; }
```

Property Value

TYPE	DESCRIPTION
System.Boolean	

Name

Graph name

Declaration

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

Property Value

TYPE	DESCRIPTION
System.String	

Nodes

Knoten

Declaration

```
public List<Node> Nodes { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Collections.Generic.List< Node >	

Methods

Clone()

Klont einen Graphen

Declaration

```
public BasicGraphModel Clone()
```

Returns

TYPE	DESCRIPTION
BasicGraphModel	

Class BasicGraphModelPoco

Model Klasse für API- Aufrufe/Antworten

Inheritance

System.Object

[BasicGraphModel](#)

BasicGraphModelPoco

Inherited Members

[BasicGraphModel.Name](#)

[BasicGraphModel.Nodes](#)

[BasicGraphModel.Edges](#)

[BasicGraphModel.ActiveNode](#)

[BasicGraphModel.ActiveEdge](#)

[BasicGraphModel.ConvexHull](#)

[BasicGraphModel.IsDirected](#)

[BasicGraphModel.IsMultigraph](#)

[BasicGraphModel.Clone\(\)](#)

System.Object.Equals(System.Object)

System.Object.Equals(System.Object, System.Object)

System.Object.GetHashCode()

System.Object.GetType()

System.Object.MemberwiseClone()

System.Object.ReferenceEquals(System.Object, System.Object)

System.Object.ToString()

Namespace: [VisualGraph.Shared.Models](#)

Assembly: VisualGraph.Shared.dll

Syntax

```
public class BasicGraphModelPoco : BasicGraphModel
```

Constructors

BasicGraphModelPoco()

Declaration

```
public BasicGraphModelPoco()
```

BasicGraphModelPoco(BasicGraphModel)

Declaration

```
public BasicGraphModelPoco(BasicGraphModel x)
```

Parameters

TYPE	NAME	DESCRIPTION
BasicGraphModel	x	

Properties

NodesPoco

Declaration

```
public List<NodePoco> NodesPoco { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Collections.Generic.List<NodePoco>	

Class BasicGraphToGraphMIMapping

Führt Attribute von Online- Graphen mit BasicGraphModels zusammen

Inheritance

System.Object
BasicGraphToGraphMIMapping

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: VisualGraph.Shared.Models

Assembly: VisualGraph.Shared.dll

Syntax

```
public class BasicGraphToGraphMIMapping
```

Constructors

BasicGraphToGraphMIMapping()

Erstellt eine neue Instanz der Klasse. Wichtig für die JSON- Serialisierung

Declaration

```
public BasicGraphToGraphMIMapping()
```

BasicGraphToGraphMIMapping(TinkerGraph)

Erstellt eine neue, initialisierte Instanz der Klasse

Declaration

```
public BasicGraphToGraphMIMapping(TinkerGraph loadedGraph)
```

Parameters

TYPE	NAME	DESCRIPTION
Frontenac.Blueprints.Impls.TG.TinkerGraph	loadedGraph	

BasicGraphToGraphMIMapping(TinkerGraph, BasicGraphModel)

Erstellt eine neue initialisierte Instanz der Klasse

Declaration

```
public BasicGraphToGraphMIMapping(TinkerGraph loadedGraph, BasicGraphModel graph)
```

Parameters

TYPE	NAME	DESCRIPTION
Frontenac.Blueprints.Impls.TG.TinkerGraph	loadedGraph	

TYPE	NAME	DESCRIPTION
BasicGraphModel	graph	

BasicGraphToGraphMlMapping(TinkerGraph, BasicGraphModel, AttributeMappings)

Erstellt eine neue Instanz der Klasse

Declaration

```
public BasicGraphToGraphMlMapping(TinkerGraph loadedGraph, BasicGraphModel graph, AttributeMappings mappings)
```

Parameters

TYPE	NAME	DESCRIPTION
Frontenac.Blueprints.Impls.TG.TinkerGraph	loadedGraph	
BasicGraphModel	graph	
AttributeMappings	mappings	

Properties

BasicGraphModel

Ergebnis Graph

Declaration

```
public BasicGraphModel BasicGraphModel { get; set; }
```

Property Value

TYPE	DESCRIPTION
BasicGraphModel	

FoundEdgeKeys

Gefundene Kanten- Attribute

Declaration

```
public List<string> FoundEdgeKeys { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Collections.Generic.List<System.String>	

FoundNodeKeys

Gefundene Knoten- Attribute

Declaration

```
public List<string> FoundNodeKeys { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Collections.Generic.List<System.String>	

Mappings

Zuweisung der Fremden Attribute an BasicGraphModel- Attribute

Declaration

<pre>public AttributeMappings Mappings { get; set; }</pre>
--

Property Value

TYPE	DESCRIPTION
AttributeMappings	

tinkerGraph

Heruntergeladener Graph

Declaration

<pre>public TinkerGraph tinkerGraph { get; set; }</pre>

Property Value

TYPE	DESCRIPTION
Frontenac.Blueprints.Impls.TG.TinkerGraph	

Methods

ExecuteMappingOfValues()

Führt das Mapping aus, nachdem den Beutzer alle fremden Attribute an die anwendungsinternen Attribute gebunden hat

Declaration

<pre>public void ExecuteMappingOfValues()</pre>

Class Edge

Kapselt Daten von Kanten

Inheritance

System.Object
Edge

Implements

[ICSSProperties](#)

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Shared.Models](#)

Assembly: VisualGraph.Shared.dll

Syntax

```
public class Edge : ICSSProperties
```

Constructors

Edge()

Erstellt neue Kante

Declaration

```
public Edge()
```

Fields

curveScale

Kurvenweite

Declaration

```
public float curveScale
```

Field Value

TYPE	DESCRIPTION
System.Single	

curveScaleLowerBound

Untergrenze für Kurvenweite

Declaration

```
public float curveScaleLowerBound
```

Field Value

TYPE	DESCRIPTION
System.Single	

curveScaleUpperBound

Obergrenze für Kurvenweite

Declaration

```
public float curveScaleUpperBound
```

Field Value

TYPE	DESCRIPTION
System.Single	

IsActive

Ist die Kante aktuell als aktiv ausgewählt

Declaration

```
public bool IsActive
```

Field Value

TYPE	DESCRIPTION
System.Boolean	

Properties

Activeclass

Css- Klasse für aktive Kanten

Declaration

```
public string Activeclass { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

AutoWeight

Automatisches Gewicht (Abstand zw. Start- und Endknoten)

Declaration

```
public double AutoWeight { get; }
```

Property Value

TYPE	DESCRIPTION
System.Double	

Classes

CSS- Klassen der Kante

Declaration

```
public List<string> Classes { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Collections.Generic.List<System.String>	

Direction

Richtung der Kante

Declaration

```
public Vector2 Direction { get; }
```

Property Value

TYPE	DESCRIPTION
System.Numerics.Vector2	

Edgemiddle

Mittelpunkt der Kante

Declaration

```
public Vector2 Edgemiddle { get; }
```

Property Value

TYPE	DESCRIPTION
System.Numerics.Vector2	

EndNode

End- Knoten der Kante

Declaration

```
public Node EndNode { get; set; }
```

Property Value

TYPE	DESCRIPTION
Node	

Id

Kanten ID

Declaration

```
public string Id { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

StartNode

Start- Knoten der Kante

Declaration

```
public Node StartNode { get; set; }
```

Property Value

TYPE	DESCRIPTION
Node	

Weight

Gewicht der Kante

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

Implements

[ICSSProperties](#)

Class GraphStyleParameters

Steuert die Darstellung der Graphen

Inheritance

System.Object
GraphStyleParameters

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: VisualGraph.Shared.Models

Assembly: VisualGraph.Shared.dll

Syntax

```
public class GraphStyleParameters
```

Properties

EdgeActiveStrokeColor

Konturfarbe aktive Kante (rgb(r,g,b), rgba(r,g,b,a), #rrggbb oder HTML- Farbdefinitionen)

Declaration

```
public string EdgeActiveStrokeColor { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

EdgeHightlitingColor

Hervorhebungsfarbe für Kanten

Declaration

```
public string EdgeHightlitingColor { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

EdgeHightlitingWidth

Kantenlinienstärke für hervorgehobene Kanten

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

EdgeHighlitingWidthText

Kantenlinienstärke für hervorgehobene Kanten als InvariantCulture- String in px

Declaration

```
public string EdgeHighlitingWidthText { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

EdgeRouteColor

Farbe für Kanten auf der berechneten Route

Declaration

```
public string EdgeRouteColor { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

EdgeRouteWidth

Kantenlinienstärke für Kanten auf der berechneten Route

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

EdgeRouteWidthText

Kantenlinienstärke für Kanten auf der berechneten Route als InvariantCulture- String in px

Declaration

```
public string EdgeRouteWidthText { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

EdgeStrokeColor

Kantenkonturfarbe (rgb(r,g,b), rgba(r,g,b,a), #rrggbb oder HTML- Farbdefinitionen)

Declaration

```
public string EdgeStrokeColor { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

EdgeWidth

Kantenlinienstärke

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

EdgeWidthText

Kantenlinienstärke als InvariantCulture- String in px

Declaration

```
public string EdgeWidthText { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

FullPadding

Abstand inkl Node- Radius und Node- Konturstärke

Declaration

```
public double FullPadding { get; }
```

Property Value

TYPE	DESCRIPTION
System.Double	

FullPaddingText

Abstand (FullPadding) als InvariantCulture- String in px

Declaration

```
public string FullPaddingText { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

NodeActiveFill

Aktiver Knoten- Füllfarbe (rgb(r,g,b), rgba(r,g,b,a), #rrggbb oder HTML- Farbdefinitionen)

Declaration

```
public string NodeActiveFill { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

NodeEndFill

Endknoten- Füllfarbe (rgb(r,g,b), rgba(r,g,b,a), #rrggbb oder HTML- Farbdefinitionen)

Declaration

```
public string NodeEndFill { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

NodeFill

Knoten- Füllfarbe (rgb(r,g,b), rgba(r,g,b,a), #rrggbb oder HTML- Farbdefinitionen)

Declaration

```
public string NodeFill { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

NodeRadius

Knotenradius

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

NodeRadiusText

Knotenradius als InvariantCulture- String in px

Declaration

```
public string NodeRadiusText { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

NodeStartFill

Startknoten- Füllfarbe (rgb(r,g,b), rgba(r,g,b,a), #rrggbb oder HTML- Farbdefinitionen)

Declaration

```
public string NodeStartFill { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

NodeStrokeColor

Knoten- Konturfarbe (rgb(r,g,b), rgba(r,g,b,a), #rrggbb oder HTML- Farbdefinitionen)

Declaration

```
public string NodeStrokeColor { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

NodeStrokeWidth

Knoten- Konturstärke

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

NodeStrokeWidthText

Knoten- Konturstärke als InvariantCulture- String in px

Declaration

```
public string NodeStrokeWidthText { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Padding

Abstand zu den Seiten des SVG- Conatiners

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

TextColor

Textfarbe

Declaration

```
public string TextColor { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

TextSize

SVG- Textgröße

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

TextSizeText

Textgröße als InvariantCulture- String in px

Declaration


```
public string TextSizeText { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Methods

InitFromPoco(GraphStyleParametersPOCO)

Initialisiert die Werte aus Ergebnissen von API- Abfragen

Declaration

```
public void InitFromPoco(GraphStyleParametersPOCO styleParametersPOCO)
```

Parameters

TYPE	NAME	DESCRIPTION
GraphStyleParametersPOCO	styleParametersPOCO	

Class GraphStyleParametersPOCO

POCO Klasse für GraphStyleParameters. Kopie der GraphStyleParameters ohne Lambda- Ausdrücke

Inheritance

System.Object
GraphStyleParametersPOCO

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Shared.Models](#)
Assembly: VisualGraph.Shared.dll

Syntax

```
public class GraphStyleParametersPOCO
```

Properties

EdgeActiveStrokeColor

Declaration

```
public string EdgeActiveStrokeColor { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

EdgeHighlitingColor

Declaration

```
public string EdgeHighlitingColor { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

EdgeHighlitingWidth

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

EdgeRouteColor

Declaration

```
public string EdgeRouteColor { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

EdgeRouteWidth

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

EdgeStrokeColor

Declaration

```
public string EdgeStrokeColor { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

EdgeWidth

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

NodeActiveFill

Declaration

```
public string NodeActiveFill { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

NodeEndFill

Declaration

```
public string NodeEndFill { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

NodeFill

Declaration

```
public string NodeFill { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

NodeRadius

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

NodeStartFill

Declaration

```
public string NodeStartFill { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

NodeStrokeColor

Declaration

```
public string NodeStrokeColor { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

NodeStrokeWidth

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

Padding

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

TextColor

Declaration

```
public string TextColor { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

TextSize

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

Methods

Initialize(GraphStyleParameters)

Initialisiert die Werte aus Ergebnissen vor API- Antworten

Declaration

```
public void Initialize(GraphStyleParameters GraphStyleParameters)
```

Parameters

TYPE	NAME	DESCRIPTION
GraphStyleParameters	GraphStyleParameters	

Class Node

Diese Klasse stellt die Knoten im BasicGraphModel dar

Inheritance

System.Object
Node
[NodePoco](#)

Implements

[ICSSProperties](#)

Inherited Members

System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Shared.Models](#)

Assembly: VisualGraph.Shared.dll

Syntax

```
public class Node : ICSSProperties
```

Constructors

Node()

Erstellt neue Instanz der Klasse

Declaration

```
public Node()
```

Fields

Edges

Mit diesem Knoten verbundene Kanten

Declaration

```
public List<Edge> Edges
```

Field Value

TYPE	DESCRIPTION
System.Collections.Generic.List< Edge >	

IsActive

Gibt an ob die Kante aktiv ist

Declaration

```
public bool IsActive
```

Field Value

TYPE	DESCRIPTION
System.Boolean	

Pos

Position der Kante

Declaration

```
public Vector2 Pos
```

Field Value

TYPE	DESCRIPTION
System.Numerics.Vector2	

Properties

Activeclass

CSS- Klasse für aktive Knoten

Declaration

```
public string Activeclass { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Classes

hinzugefügte CSS- Klassen

Declaration

```
public List<string> Classes { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Collections.Generic.List<System.String>	

Distance

Länge des Positions- Vektors

Declaration

```
public double Distance { get; }
```

Property Value

TYPE	DESCRIPTION
System.Double	

Id

ID des Knotens

Declaration

```
public string Id { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Name

Name des Knoten

Declaration

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

Property Value

TYPE	DESCRIPTION
System.String	

PosXText

X- Koordinate der Position als InvariantCulture- String

Declaration

```
public string PosXText { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

PosYText

Y- Koordinate der Position als InvariantCulture- String

Declaration

```
public string PosYText { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Methods

Neighbours(Boolean)

Knoten, die mit diesem benachbart sind

Declaration

```
public List<Node> Neighbours(bool isDirectional)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Boolean	isDirectional	gibt an, ob es ein gerichteter Graph ist. Wenn war werden nur ausgehende Kanten geprüft. Sonst beide richtungen

Returns

TYPE	DESCRIPTION
System.Collections.Generic.List<Node>	Liste alle benachberten Knoten

Operators

Addition(Node, Node)

Addiert die Positionen der beiden Nodes und gibt neuen Knoten zurück

Declaration

```
public static Node operator +(Node a, Node b)
```

Parameters

TYPE	NAME	DESCRIPTION
Node	a	
Node	b	

Returns

TYPE	DESCRIPTION
Node	Knoten mit Summe der Positionen der Eingabe- Knoten

Subtraction(Node, Node)

Subtrahiert die Positionen der beiden Nodes und gibt neuen Knoten zurück

Declaration

```
public static Node operator -(Node a, Node b)
```

Parameters

TYPE	NAME	DESCRIPTION
Node	a	
Node	b	

Returns

TYPE	DESCRIPTION
Node	Knoten mit Differenz der Positionen der Eingabe- Knoten

Implements

[ICSSProperties](#)

Class NodePoco

POCO Klasse für die JSON- Serialisierung von Nodes/Graphen

Inheritance

System.Object
[Node](#)
NodePoco

Implements

[ICSSProperties](#)

Inherited Members

[Node.Pos](#)
[Node.Edges](#)
[Node.IsActive](#)
[Node.Neighbours\(Boolean\)](#)
[Node.PosXText](#)
[Node.PosYText](#)
[Node.Name](#)
[Node.Id](#)
[Node.Classes](#)
[Node.Activeclass](#)
[Node.Distance](#)
System.Object.Equals(System.Object)
System.Object.Equals(System.Object, System.Object)
System.Object.GetHashCode()
System.Object.GetType()
System.Object.MemberwiseClone()
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.ToString()

Namespace: [VisualGraph.Shared.Models](#)
Assembly: VisualGraph.Shared.dll

Syntax

```
public class NodePoco : Node, ICSSProperties
```

Constructors

NodePoco()

Declaration

```
public NodePoco()
```

NodePoco(Node)

Declaration

```
public NodePoco(Node node)
```

Parameters

TYPE	NAME	DESCRIPTION
Node	node	

Properties

PosXTextPoco

Declaration

```
public string PosXTextPoco { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

PosYTextPoco

Declaration

```
public string PosYTextPoco { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Implements

[ICSSProperties](#)

Class Point2

Vector2 Alternative Dokumentation siehe System.Numerics.Vector2

Inheritance

System.Object
Point2

Inherited Members

- System.Object.Equals(System.Object)
- System.Object.Equals(System.Object, System.Object)
- System.Object.GetHashCode()
- System.Object.GetType()
- System.Object.MemberwiseClone()
- System.Object.ReferenceEquals(System.Object, System.Object)
- System.Object.ToString()

Namespace: VisualGraph.Shared.Models
Assembly: VisualGraph.Shared.dll

Syntax

```
public class Point2
```

Constructors

Point2()

Declaration

```
public Point2()
```

Point2(Double)

Declaration

```
public Point2(double value)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Double	value	

Point2(Double, Double)

Declaration

```
public Point2(double x, double y)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Double	x	
System.Double	y	

Properties

X

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

Y

Declaration

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

Property Value

TYPE	DESCRIPTION
System.Double	

Operators

Addition(Point2, Point2)

Declaration

```
public static Point2 operator +(Point2 a, Point2 b)
```

Parameters

TYPE	NAME	DESCRIPTION
Point2	a	
Point2	b	

Returns

TYPE	DESCRIPTION
Point2	

Division(Point2, Double)

Declaration

```
public static Point2 operator /(Point2 a, double factor)
```

Parameters

TYPE	NAME	DESCRIPTION
Point2	a	
System.Double	factor	

Returns

TYPE	DESCRIPTION
Point2	

Multiply(Point2, Double)

Declaration

```
public static Point2 operator *(Point2 a, double factor)
```

Parameters

TYPE	NAME	DESCRIPTION
Point2	a	
System.Double	factor	

Returns

TYPE	DESCRIPTION
Point2	

Subtraction(Point2, Point2)

Declaration

```
public static Point2 operator -(Point2 a, Point2 b)
```

Parameters

TYPE	NAME	DESCRIPTION
Point2	a	
Point2	b	

Returns

TYPE	DESCRIPTION
Point2	

UnaryNegation(Point2)

Declaration

```
public static Point2 operator -(Point2 a)
```

Parameters

TYPE	NAME	DESCRIPTION
Point2	a	

Returns

TYPE	DESCRIPTION
Point2	

UnaryPlus(Point2)

Declaration

```
public static Point2 operator +(Point2 a)
```

Parameters

TYPE	NAME	DESCRIPTION
Point2	a	

Returns

TYPE	DESCRIPTION
Point2	

Class UserModel

Kapselt alle Informationen/Daten zum Benutzer

Inheritance

System.Object

UserModel

[UserUpdateModel](#)

Inherited Members

System.Object.Equals(System.Object)

System.Object.Equals(System.Object, System.Object)

System.Object.GetHashCode()

System.Object.GetType()

System.Object.MemberwiseClone()

System.Object.ReferenceEquals(System.Object, System.Object)

System.Object.ToString()

Namespace: [VisualGraph.Shared.Models](#)

Assembly: VisualGraph.Shared.dll

Syntax

```
public class UserModel
```

Properties

ErrorMessage

Fehler im zusammenhang mit Benutzerprofilen. Z.B. "falsches Passwort" bei Login oder "User nicht gefunden"

Declaration

```
public string ErrorMessage { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Firstname

Vorname

Declaration

```
public string Firstname { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

HasError

Gibt an, ob ein Fehler Vorlag

Declaration

```
[JsonIgnore]
public bool HasError { get; }
```

Property Value

TYPE	DESCRIPTION
System.Boolean	

Id

Random Zeichenkette. Wird erstellt, wenn Nutzer registriert wird

Declaration

```
public string Id { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

IsAuth

gibt an ob der Benutzer angemeldet ist

Declaration

```
[JsonIgnore]
public bool IsAuth { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Boolean	

Name

Familienname

Declaration

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

Property Value

TYPE	DESCRIPTION
System.String	

Password

Passwort. (Controller sollen immer Models ohne Passwort zurückgeben)

Declaration

```
public string Password { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Roles

Benutzerrollen

Declaration

```
public List<string> Roles { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Collections.Generic.List<System.String>	

Username

Benutzername

Declaration

```
public string Username { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Class UserUpdateModel

Kapselt Informationen/ Daten zum bearbeiteten User.

Inheritance

System.Object

UserModel

UserUpdateModel

Inherited Members

UserModel.Id

UserModel.Firstname

UserModel.Name

UserModel.Username

UserModel.Password

UserModel.ErrorMessage

UserModel.HasError

UserModel.Roles

UserModel.IsAuth

System.Object.Equals(System.Object)

System.Object.Equals(System.Object, System.Object)

System.Object.GetHashCode()

System.Object.GetType()

System.Object.MemberwiseClone()

System.Object.ReferenceEquals(System.Object, System.Object)

System.Object.ToString()

Namespace: VisualGraph.Shared.Models

Assembly: VisualGraph.Shared.dll

Syntax

```
public class UserUpdateModel : UserModel
```

Properties

NewPassword

Neues Passwort

Declaration

```
public string NewPassword { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

RetypedPassword

Wiederhoung des neuen Passwortes

Declaration

```
public string RetypedPassword { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Methods

FromUserModel(UserModel)

Erstellt Instanz aus UserModel

Declaration

```
public static UserUpdateModel FromUserModel(UserModel userModel)
```

Parameters

TYPE	NAME	DESCRIPTION
UserModel	usermodel	

Returns

TYPE	DESCRIPTION
UserUpdateModel	

Namespace VisualGraph.Shared.Models.Interfaces

Interfaces

[ICSSProperties](#)

Interface für Elemente mit Css- Klassen und einer Id

Interface ICSSProperties

Interface für Elemente mit Css- Klassen und einer Id

Namespace: [VisualGraph.Shared.Models.Interfaces](#)

Assembly: VisualGraph.Shared.dll

Syntax

```
public interface ICSSProperties
```

Properties

Classes

Declaration

```
List<string> Classes { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.Collections.Generic.List<System.String>	

ClassesProppertie

Declaration

```
virtual string ClassesProppertie { get; }
```

Property Value

TYPE	DESCRIPTION
System.String	

Id

Declaration

```
string Id { get; set; }
```

Property Value

TYPE	DESCRIPTION
System.String	