Support: Create Support and Assign Support to Node(s)

Support

Functions

afx_msg VARIANT	**OSSupportUI::CreateSupportFixed** () Creates a fully fixed support.
afx_msg VARIANT	**OSSupportUI::CreateSupportPinned** () Creates a pinned support (i.e., free to rotate about local y and z axis, fixed in all other degrees of freedom).
afx_msg VARIANT	**OSSupportUI::CreateSupportFixedBut** (const VARIANT FAR &varReleaseSpec, const VARIANT FAR &varSpringSpec) Creates fixed support with releases in specified directions or a spring support with spring constants in specified directions.
afx_msg VARIANT	**OSSupportUI::AssignSupportToNode** (const VARIANT FAR &varnNodeNo, const VARIANT FAR &varnSupportNo) Assigns the specified support to node(s).
afx_msg VARIANT	**OSSupportUI::GetSupportName** (const VARIANT FAR &nSupportNo) Get support string name.
afx_msg VARIANT	**OSSupportUI::GetSupportUniqueID** (const VARIANT FAR &nSupportNo) Get unique ID GUID string for a support item.
afx_msg void	**OSSupportUI::SetSupportUniqueID** (const VARIANT FAR &nSupportNo, const VARIANT FAR &szName) Set unique ID for a support item.
afx_msg VARIANT	**OSSupportUI::RemoveSupportFromNode** (const VARIANT FAR &nNodeNo) Removes support assignment from a node.
afx_msg VARIANT	**OSSupportUI::DeleteSupport** (const VARIANT FAR &nSupportNo) Removes support items used in the model.
afx_msg VARIANT	**OSSupportUI::CreateInclinedSupport** (const VARIANT FAR &varInclinedType, const VARIANT FAR &varType, const VARIANT FAR &vaRefNode, const VARIANT FAR &vaCoord, const VARIANT FAR &varReleaseSpec, const VARIANT FAR &varSpringSpec) Creates inclined fixed support with releases in specified directions or a spring support with spring constants in specified directions.
afx_msg VARIANT	**OSSupportUI::CreateElasticMat** (const VARIANT FAR &nDir, const VARIANT FAR &nSubgrade, const VARIANT FAR &nPrint, const VARIANT FAR &nSpringType) Creates elastic mat support in specified direction and returns the support reference Id.
afx_msg VARIANT	**OSSupportUI::RemoveElasticMat** (const VARIANT FAR &supportid) Remove elastic mat support for a specific support Id.
afx_msg VARIANT	**OSSupportUI::RemoveElasticMatFromNode** (const VARIANT FAR &nodeid)

	Remove elastic mat support from a specific node.
afx_msg VARIANT	**OSSupportUI::AssignSupportToEntityList** (const VARIANT FAR &supportid, const VARIANT FAR &entitylist)
	Assigns the specified support to entitylist.
afx_msg VARIANT	**OSSupportUI::CreatePlateMat** (const VARIANT FAR &varDirection, const VARIANT FAR &varSubgrade, const VARIANT FAR &varPrint, const VARIANT FAR &varSpringType)
	Creates plate mat support in specified direction and returns the support reference Id.
afx_msg VARIANT	**OSSupportUI::RemovePlateMat** (const VARIANT FAR &varnPlateMatNo)
	Remove plate mat support for a specific support Id.
afx_msg VARIANT	**OSSupportUI::RemovePlateMatFromPlate** (const VARIANT FAR &varPlateNo)
	Remove elastic mat support from a specific node.
afx_msg VARIANT	**OSSupportUI::CreateElasticFooting** (const VARIANT FAR &length, const VARIANT FAR &width, const VARIANT FAR &dir, const VARIANT FAR &subgrade)
	Creates elastic footing support in specified direction and returns the support reference Id.
afx_msg VARIANT	**OSSupportUI::RemoveElasticFooting** (const VARIANT FAR &supportid)
	Remove elastic footing support for a specific support Id.
afx_msg VARIANT	**OSSupportUI::RemoveElasticFootingFromNode** (const VARIANT FAR &nodeid)
	Remove elastic footing support from a specific node.

Detailed Description

These functions are related to create support at node(s). @{@}

Function Documentation

◆ AssignSupportToEntityList()

VARIANT OSSupportUI::AssignSupportToEntityList (const VARIANT FAR & supportid,

const VARIANT FAR & entitylist)

Assigns the specified support to entitylist.

Parameters

[in] **supportid** (Type: Long).

[in] **entitylist** Entitylist should contain plate numbers for PlateMat or node numbers for rest of support types (Type: Long).

Return values

TRUE Successful.

FALSE Unsuccessful.

Example: VBA

```
Option Explicit

    Sub Main
        Dim objOpenStaad As Object
        Dim stdFile As String
        Dim list(1) As Long
        Dim supportId As Long
        Dim Res As Boolean

        Set objOpenStaad = GetObject(,"StaadPro.OpenSTAAD")
        objOpenStaad.GetSTAADFile stdFile, "TRUE"
        list(0) = 41
        list(1) = 42
        supportId = 3
        Res = objOpenStaad.support.AssignSupportToEntityList(supportId,list)
    End Sub
```

◆ AssignSupportToNode()

VARIANT OSSupportUI::AssignSupportToNode (const VARIANT FAR & varnNodeNo,

const VARIANT FAR & varnSupportNo)

Assigns the specified support to node(s).

Parameters

[in] **varnNodeNo**   The node number ID(s) VARIANT array.

[in] **varnSupportNo** Support Reference number ID.

Return values

0 OK.

-1 General error.

Example: VBA

```
Sub AssignSupport()
  Dim objOpenSTAAD As Object
  Dim SelNodesNo As Long
  Dim varnNodeNo() As Long
  Dim varnSupportNo As Long
  Dim assignSupport As Variant
  Dim I As Integer

'Launch OpenSTAAD Object
  Set objOpenSTAAD = GetObject(, "StaadPro.OpenSTAAD")

'Get no. of selected nodes
  SelNodesNo = objOpenSTAAD.Geometry.GetNoOfSelectedNodes

'Create Fixed Support
  varnSupportNo = objOpenSTAAD.Support.CreateSupportFixed


  If (SelNodesNo > 0) Then
    ReDim varnNodeNo(SelNodesNo - 1) As Long

    'Get selected nodes
        objOpenSTAAD.Geometry.GetSelectedNodes varnNodeNo, 1

    'Assign Support to nodes
        For I = 0 To UBound(varnNodeNo)
            assignSupport = objOpenSTAAD.Support.AssignSupportToNode(varnNodeNo(I),
        varnSupportNo)
        Next

    'Create a new view
        objOpenSTAAD.View.CreateNewViewForSelections
  Else
    MsgBox "No nodes are currently selected.", vbOKOnly
  End If


  Set objOpenSTAAD = Nothing
```

```
End Sub
```

◆ CreateElasticFooting()

VARIANT OSSupportUI::CreateElasticFooting (const VARIANT FAR & length,

const VARIANT FAR & width,

const VARIANT FAR & dir,

const VARIANT FAR & subgrade)

Creates elastic footing support in specified direction and returns the support reference Id.

Parameters

[in] **length**   Length of footing (Type: Double)

[in] **width**   Width of footing (Type: Double)

[in] **dir**   Direction of the resistance of the spring supports (Type: Long):

Value	Direction
0	X Direction
1	Y Direction
2	Z Direction
3	X Only Direction
4	Y Only Direction
5	Z Only Direction

[in] **subgrade** Subgrade Modulus of the soil (Type: Double)

Return values

<Val> Support reference ID.

0   General error.

Example: VBA

```
Option Explicit

    Sub Main
        Dim objOpenStaad As Object
        Dim stdFile As String
        Dim Result As Long
        Dim Length As Double
        Dim Width As Double
        Dim Direction As Long
        Dim Subgrade As Double

        Set objOpenStaad = GetObject(,"StaadPro.OpenSTAAD")
        objOpenStaad.GetSTAADFile stdFile, "TRUE"
        If stdFile="" Then
            MsgBox"Bad"
            Set objOpenStaad = Nothing
            Exit Sub
        End If

         Length = 5
         Width = 6
```

```
        Direction = 2
        Subgrade = 20
        Result = objOpenStaad.Support.CreateElasticFooting(Length, Width, Direction,
        Subgrade)

        If Result > 0 Then
          MsgBox"Elastic footing created."
        Else
          MsgBox"Elastic footing not created."
        End If

        Set objOpenStaad = Nothing
    End Sub
```

◆ CreateElasticMat()

VARIANT OSSupportUI::CreateElasticMat (const VARIANT FAR & nDir,

const VARIANT FAR & nSubgrade,

const VARIANT FAR & nPrint,

const VARIANT FAR & nSpringType)

Creates elastic mat support in specified direction and returns the support reference Id.

Parameters

[in] **nDir**   (Type: Long):

Value	Inclined Type
0	X Direction
1	Y Direction
2	Z Direction
3	X Only Direction
4	Y Only Direction
5	Z Only Direction

[in] **nSubgrade**   Subgrade Modulus (Type: Double)

[in] **nPrint**   (Type: Long)

Value	Print Influence
0	Not Checked
1	Checked

[in] **nSpringType** Generate Compression (Type: Long)

Value	Spring Type
0	None
1	Compression Only
2	Multi-Linear

Return values

\<Val\> Support Reference number ID.

0   General error.

Example: VBA

```
Option Explicit

    Sub Main
        Dim objOpenStaad As Object
        Dim stdFile As String
        Dim Result As Long
        Dim nDir As Long
```

```
        Dim nSub As Double
        Dim nPrint As Long
        Dim nSpring As Long

        nDir = 5
        nSub = 20
        nPrint = 0
        nSpring = 1
        Set objOpenStaad = GetObject(,"StaadPro.OpenSTAAD")
        objOpenStaad.GetSTAADFile stdFile, "TRUE"
      Result = objOpenStaad.Support.CreateElasticMat(nDir,nSub,nPrint,nSpring)
    End Sub
```

◆ CreateInclinedSupport()

VARIANT OSSupportUI::CreateInclinedSupport (const VARIANT FAR & varInclinedType,

const VARIANT FAR & varType,

const VARIANT FAR & vaRefNode,

const VARIANT FAR & varCoord,

const VARIANT FAR & varReleaseSpec,

const VARIANT FAR & varSpringSpec)

Creates inclined fixed support with releases in specified directions or a spring support with spring constants in specified directions.

Parameters

[in] **varInclinedType** Type of the Inclined support (Fixed, Pinned, FixedBut):

Value	Inclined Type
1	Pinned
2	Fixed
3	FixedBut
4	Enforced
5	EnforcedBut

[in] **varType**   Type of the reference point define:

Value	Table Type
0	**fRefX**, **fRefY**, **fRefY** global distances from the joint to the reference point.
1	**fRefX**, **fRefY**, **fRefY** global coordinates of the reference point.
2	a joint number (**vaRefNode**) whose x, y, z global coordinates is the reference point.

[in] **vaRefNode**   The reference node number ID.

[in] **varCoord**   Distance or coordinate in (X,Y,Z) direction.

[in] **varReleaseSpec** Degrees of freedom: Fixed (= 0) or Release (= 1) for FX, FY, FZ, MX, MY and MZ. (Type: Double)

[in] **varSpringSpec**   The variable spring constants: KFX, KFY, KFZ, KMX, KMY and KMZ.(Type: Double)

Return values

     <Val> Support Reference number ID.

     -1   General error.

     -2001 Cannot find Node **vaRefNode**.

Example: VBA

```vb
 Sub CreateInclinedSupport()
  Dim objOpenSTAAD As Object
  Dim SelNodesNo As Long
  Dim SelNodes() As Long
  Dim InclinedSupport As Variant
  Dim assignSupport As Variant
  Dim I As Integer

'Launch OpenSTAAD Object
  Set objOpenSTAAD = GetObject(, "StaadPro.OpenSTAAD")

'Get no. of selected nodes
  SelNodesNo = objOpenSTAAD.Geometry.GetNoOfSelectedNodes

'Create Inclined Support
  Dim varReleaseSpec(5) As Double
  Dim varSpringSpec(5) As Double
  varReleaseSpec(0) = 0    'FX
  varReleaseSpec(1) = 1    'FY
  varReleaseSpec(2) = 0    'FZ
  varReleaseSpec(3) = 0    'MX
  varReleaseSpec(4) = 0    'MY
  varReleaseSpec(5) = 0    'MZ
  varSpringSpec(0) = 0.01 'FX
  varSpringSpec(1) = 0.02 'FY
  varSpringSpec(2) = 0     'FZ
  varSpringSpec(3) = 0     'MX
  varSpringSpec(4) = 0     'MY
  varSpringSpec(5) = 0     'MZ
  Dim varCoord(2) As Double
  varCoord(0) = 0
  varCoord(1) = 0
  varCoord(2) = 0
  InclinedSupport = objOpenSTAAD.Support.CreateInclinedSupport(2, 2, 1, varCoord,
        varReleaseSpec, varSpringSpec)


  If (SelNodesNo > 0) Then
    ReDim SelNodes(SelNodesNo - 1) As Long

    'Get selected nodes
        objOpenSTAAD.Geometry.GetSelectedNodes SelNodes, 1

    'Assign Inclined support to nodes
        For I = 0 To UBound(SelNodes)
            assignSupport = objOpenSTAAD.Support.AssignSupportToNode(SelNodes(I),
        InclinedSupport)
        Next

    'Create a new view
        objOpenSTAAD.View.CreateNewViewForSelections
  Else
    MsgBox "No nodes are currently selected.", vbOKOnly
  End If


  Set objOpenSTAAD = Nothing
End Sub
```

◆ CreatePlateMat()

VARIANT OSSupportUI::CreatePlateMat (const VARIANT FAR & varDirection,

const VARIANT FAR & varSubgrades,

const VARIANT FAR & varPrint,

const VARIANT FAR & varSpringType)

Creates plate mat support in specified direction and returns the support reference Id.

Parameters

[in] **nDir**   (Type: Long):

Value	Inclined Type
0	X Direction
1	Y Direction
2	Z Direction
3	X Only Direction
4	Y Only Direction
5	Z Only Direction
6	All Direction

[in] **varSubgrades** Subgrade Modulus value(s), If All Direction set, varSubgrades is (Array of Double), otherwise it should be a double value.(Type: Double)

[in] **varPrint**   (Type: Long)

Value	Print Influence
0	Not Checked
1	Checked

[in] **varSpringType** Generate Compression (Type: Long)

Value	Spring Type
0	None
1	Compression Only
2	Multi-Linear

Return values

<Val> Support Reference number ID.

0   General error.

Example: VBA

```
Option Explicit
    Sub Main
        Dim objOpenStaad As Object
        Dim stdFile As String
```

```
        Set objOpenStaad = GetObject(,"StaadPro.OpenSTAAD")
        objOpenStaad.GetSTAADFile stdFile, "TRUE"
        If stdFile="" Then
            MsgBox"Bad"
            Set objOpenStaad = Nothing
            Exit Sub
        End If
        Dim plateMatId As long
        Dim nDir As Long
        Dim nSub(2) As Double
        Dim nPrint As Long
        Dim nSpring As Long
        nDir = 2
        nSub(0) = 20
        nSub(1) = 30
        nSub(2) = 40
        nPrint = 0
        nSpring = 1
        plateMatId = objOpenStaad.Support.CreatePlateMat(nDir,nSub,nPrint,nSpring)
        If plateMatId> 0 Then
            MsgBox"Successful"
        Else
            MsgBox"Error"
        End If
        Set objOpenStaad = Nothing
    End Sub
```

◆ CreateSupportFixed()

VARIANT OSSupportUI::CreateSupportFixed ( )

Creates a fully fixed support.

Return values

> **<Val>** Support Reference number ID.
>
> **-1**   General error.

Example: VBA

```
Sub CreateFixedSupport()
  Dim objOpenSTAAD As Object
  Dim SelNodesNo As Long
  Dim SelNodes() As Long
  Dim fixedSupport As Long
  Dim assignSupport As Variant
  Dim I As Integer

'Launch OpenSTAAD Object
  Set objOpenSTAAD = GetObject(, "StaadPro.OpenSTAAD")

'Get no. of selected nodes
  SelNodesNo = objOpenSTAAD.Geometry.GetNoOfSelectedNodes

'Create Fixed Support
  fixedSupport = objOpenSTAAD.Support.CreateSupportFixed


  If (SelNodesNo > 0) Then
    ReDim SelNodes(SelNodesNo - 1) As Long

    'Get selected nodes
        objOpenSTAAD.Geometry.GetSelectedNodes SelNodes, 1

    'Assign Fixed support to nodes
        For I = 0 To UBound(SelNodes)
            assignSupport = objOpenSTAAD.Support.AssignSupportToNode(SelNodes(I),
        fixedSupport)
         Next

    'Create a new view
        objOpenSTAAD.View.CreateNewViewForSelections
  Else
    MsgBox "No nodes are currently selected.", vbOKOnly
  End If


  Set objOpenSTAAD = Nothing
End Sub
```

See also

> **OSSupportUI::CreateSupportFixedBut**

◆ CreateSupportFixedBut()

VARIANT OSSupportUI::CreateSupportFixedBut (const VARIANT FAR & varReleaseSpec,

const VARIANT FAR & varSpringSpec)

Creates fixed support with releases in specified directions or a spring support with spring constants in specified directions.

Parameters

[in] **varReleaseSpec** Degrees of freedom: Fixed (= 0) or Release (= 1) for FX, FY, FZ, MX, MY and MZ. (Type : Double)

[in] **varSpringSpec** The variable spring constants: KFX, KFY, KFZ, KMX, KMY and KMZ.(Type : Double)

Return values

<Val> Support Reference number ID.

-1 General error.

Example: VBA

```
Sub CreateFixedButSupport()
  Dim objOpenSTAAD As Object
  Dim SelNodesNo As Long
  Dim SelNodes() As Long
  Dim fixedButSupport As Long
  Dim assignSupport As Variant
  Dim I As Integer

'Launch OpenSTAAD Object
  Set objOpenSTAAD = GetObject(, "StaadPro.OpenSTAAD")

'Get no. of selected nodes
  SelNodesNo = objOpenSTAAD.Geometry.GetNoOfSelectedNodes

'Create FixedBut Support
  Dim varReleaseSpec(5) As Double
  Dim varSpringSpec(5) As Double
  varReleaseSpec(0) = 0    'FX
  varReleaseSpec(1) = 1    'FY
  varReleaseSpec(2) = 0    'FZ
  varReleaseSpec(3) = 0    'MX
  varReleaseSpec(4) = 0    'MY
  varReleaseSpec(5) = 0    'MZ
  varSpringSpec(0) = 0.01 'FX
  varSpringSpec(1) = 0.02 'FY
  varSpringSpec(2) = 0    'FZ
  varSpringSpec(3) = 0    'MX
  varSpringSpec(4) = 0    'MY
  varSpringSpec(5) = 0    'MZ
  fixedButSupport = objOpenSTAAD.Support.CreateSupportFixedBut(varReleaseSpec,
      varSpringSpec)


  If (SelNodesNo > 0) Then
    ReDim SelNodes(SelNodesNo - 1) As Long
```

```
    'Get selected nodes
        objOpenSTAAD.Geometry.GetSelectedNodes SelNodes, 1

    'Assign FixedBut support to nodes
        For I = 0 To UBound(SelNodes)
            assignSupport = objOpenSTAAD.Support.AssignSupportToNode(SelNodes(I),
      fixedButSupport)
        Next

    'Create a new view
        objOpenSTAAD.View.CreateNewViewForSelections
    Else
      MsgBox "No nodes are currently selected.", vbOKOnly
    End If


    Set objOpenSTAAD = Nothing
End Sub
```

See also

OSSupportUI::CreateSupportFixed

◆ CreateSupportPinned()

VARIANT OSSupportUI::CreateSupportPinned ( )

Creates a pinned support (i.e., free to rotate about local y and z axis, fixed in all other degrees of freedom).

Return values

> **<Val>** Support Reference number ID.
>
> **-1**   General error.

Example: VBA

```vba
Sub CreatePinnedSupport()
  Dim objOpenSTAAD As Object
  Dim SelNodesNo As Long
  Dim SelNodes() As Long
  Dim pinnedSupport As Long
  Dim assignSupport As Variant
  Dim I As Integer

'Launch OpenSTAAD Object
  Set objOpenSTAAD = GetObject(, "StaadPro.OpenSTAAD")

'Get no. of selected nodes
  SelNodesNo = objOpenSTAAD.Geometry.GetNoOfSelectedNodes

'Create Pinned Support
  pinnedSupport = objOpenSTAAD.Support.CreateSupportPinned


  If (SelNodesNo > 0) Then
    ReDim SelNodes(SelNodesNo - 1) As Long

    'Get selected nodes
       objOpenSTAAD.Geometry.GetSelectedNodes SelNodes, 1

    'Assign Pinned support to nodes
       For I = 0 To UBound(SelNodes)
           assignSupport = objOpenSTAAD.Support.AssignSupportToNode(SelNodes(I),
       pinnedSupport)
        Next

    'Create a new view
       objOpenSTAAD.View.CreateNewViewForSelections
  Else
    MsgBox "No nodes are currently selected.", vbOKOnly
  End If


  Set objOpenSTAAD = Nothing
End Sub
```

◆ DeleteSupport()

VARIANT OSSupportUI::DeleteSupport (const VARIANT FAR & nSupportNo)

Removes support items used in the model.

Parameters

[in] **nSupportNo** The support item number. Removing the support will also remove the assignment of
the support

Return values

0 OK.

-1 General error.

Example: VBA

```
Sub DeleteSupport()
  Dim SelNodesNo As Long
  Dim SelNodes() As Long
  Dim pinnedSupport As Long
  Dim assignSupport As Variant
  Dim i As Integer

'Launch OpenSTAAD Object
  Set objOpenSTAAD = GetObject(, "StaadPro.OpenSTAAD")

'Get no. of selected nodes
  SelNodesNo = objOpenSTAAD.Geometry.GetNoOfSelectedNodes

'Create pinned support
  pinnedSupport = objOpenSTAAD.Support.CreateSupportPinned


  If (SelNodesNo > 0) Then
    ReDim SelNodes(SelNodesNo - 1) As Long

    'Get selected nodes
        objOpenSTAAD.Geometry.GetSelectedNodes SelNodes, 1

    'Assign pinned support to nodes
        For i = 0 To UBound(SelNodes)
            assignSupport = objOpenSTAAD.Support.AssignSupportToNode(SelNodes(i),
        pinnedSupport)
         Next

    'Get Support Count: Before Delete
        MsgBox objOpenSTAAD.Support.GetSupportCount, vbOKOnly

    'Detete Support
    Dim delSupport As Variant
    delSupport = objOpenSTAAD.Support.DeleteSupport(pinnedSupport)

    'Get Support Count: After Delete
        MsgBox objOpenSTAAD.Support.GetSupportCount, vbOKOnly

    'Create a new view
        objOpenSTAAD.View.CreateNewViewForSelections
    Else
```

```
      MsgBox "No nodes are currently selected.", vbOKOnly
   End If


   Set objOpenSTAAD = Nothing
End Sub
```

See also

    OSSupportUI::CreateSupportFixed

    OSSupportUI::CreateSupportPinned

    OSSupportUI::CreateSupportFixedBut

◆ GetSupportName()

VARIANT OSSupportUI::GetSupportName (const VARIANT FAR & nSupportNo)

Get support string name.

Parameters

> [in] **nSupportNo** The support node number.

Returns

> The support name string.

Example: VBA

```vba
Sub GetSupportName()
  Dim SelNodesNo As Long
  Dim SelNodes() As Long
  Dim fixedSupport As Long
  Dim pinnedSupport As Long
  Dim fixedButSupport As Long
  Dim assignSupport As Variant
  Dim supportName As Variant
  Dim i As Integer

'Launch OpenSTAAD Object
  Set objOpenSTAAD = GetObject(, "StaadPro.OpenSTAAD")

'Get no. of selected nodes
  SelNodesNo = objOpenSTAAD.Geometry.GetNoOfSelectedNodes

'Create fixed support
  fixedSupport = objOpenSTAAD.Support.CreateSupportFixed

'Create pinned support
  pinnedSupport = objOpenSTAAD.Support.CreateSupportPinned

'Create FixedBut support
  Dim release(5) As Double
  Dim spring(5) As Double
  fixedButSupport = objOpenSTAAD.Support.CreateSupportFixedBut(release, spring)


  If (SelNodesNo > 0) Then
    ReDim SelNodes(SelNodesNo - 1) As Long

    'Get selected nodes
        objOpenSTAAD.Geometry.GetSelectedNodes SelNodes, 1

    'Assign pinned support to nodes
        For i = 0 To UBound(SelNodes)
            assignSupport = objOpenSTAAD.Support.AssignSupportToNode(SelNodes(i),
        pinnedSupport)
        Next

    'Get Support Name
        supportName = objOpenSTAAD.Support.GetSupportName(fixedSupport)
        MsgBox supportName, vbInformation + vbOKOnly

    'Create a new view
        objOpenSTAAD.View.CreateNewViewForSelections
```

```
    Else
      MsgBox "No nodes are currently selected.", vbOKOnly
    End If


    Set objOpenSTAAD = Nothing
End Sub
```

◆ GetSupportUniqueID()

VARIANT OSSupportUI::GetSupportUniqueID (const VARIANT FAR & nSupportNo)

Get unique ID GUID string for a support item.

Parameters

[in] **nSupportNo** The support item number.

Returns

The support GUID string.

Example: VBA

```
Sub GetandSetSupportUniqueID()
  Dim SelNodesNo As Long
  Dim SelNodes() As Long
  Dim fixedSupport As Long
  Dim pinnedSupport As Long
  Dim fixedButSupport As Long
  Dim assignSupport As Variant
  Dim supportName As Variant
  Dim getSupportID As Variant
  Dim i As Integer

'Launch OpenSTAAD Object
  Set objOpenSTAAD = GetObject(, "StaadPro.OpenSTAAD")

'Get no. of selected nodes
  SelNodesNo = objOpenSTAAD.Geometry.GetNoOfSelectedNodes

'Create fixed support
  fixedSupport = objOpenSTAAD.Support.CreateSupportFixed

'Create pinned support
  pinnedSupport = objOpenSTAAD.Support.CreateSupportPinned

'Create FixedBut support
  Dim release(5) As Double
  Dim spring(5) As Double
  fixedButSupport = objOpenSTAAD.Support.CreateSupportFixedBut(release, spring)


  If (SelNodesNo > 0) Then
    ReDim SelNodes(SelNodesNo - 1) As Long

    'Get selected nodes
        objOpenSTAAD.Geometry.GetSelectedNodes SelNodes, 1

    'Assign pinned support to nodes
        For i = 0 To UBound(SelNodes)
            assignSupport = objOpenSTAAD.Support.AssignSupportToNode(SelNodes(i),
        pinnedSupport)
         Next

    'Assign pinned support to nodes
         'assignSupport = objOpenSTAAD.Support.AssignSupportToNode(SelNodes,
        pinnedSupport)

    'Get Support Count
```

```
            MsgBox objOpenSTAAD.Support.GetSupportCount, vbOKOnly

        'Get Support Name
            supportName = objOpenSTAAD.Support.GetSupportName(fixedSupport)
            MsgBox supportName, vbInformation + vbOKOnly

        'Set Support Unique ID
            objOpenSTAAD.Support.SetSupportUniqueID fixedButSupport, "B9863808-2111-46d9-
            A9D0-811E7166EA5A"

        'Get Support Unique ID
            getSupportID = objOpenSTAAD.Support.GetSupportUniqueID(fixedButSupport)
            MsgBox getSupportID, vbInformation + vbOKOnly

        'Create a new view
            objOpenSTAAD.View.CreateNewViewForSelections
      Else
        MsgBox "No nodes are currently selected.", vbOKOnly
      End If


      Set objOpenSTAAD = Nothing
    End Sub
```

See also

OSSupportUI::CreateSupportFixed

OSSupportUI::CreateSupportPinned

OSSupportUI::CreateSupportFixedBut

◆ RemoveElasticFooting()

VARIANT OSSupportUI::RemoveElasticFooting (const VARIANT FAR & supportid)

Remove elastic footing support for a specific support Id.

Parameters

> [in] **supportid** Support reference ID (Type: Long).

Return values

> **1** if the method is successful.

> **0** if the method is unsuccessful.

Example: VBA

```
Option Explicit

    Sub Main
        Dim objOpenStaad As Object
        Dim stdFile As String

        Set objOpenStaad = GetObject(,"StaadPro.OpenSTAAD")
        objOpenStaad.GetSTAADFile stdFile, "TRUE"
        If stdFile="" Then
            MsgBox"Bad"
            Set objOpenStaad = Nothing
            Exit Sub
        End If

        Dim Result As Long
        Result = objOpenStaad.Support.RemoveElasticFooting(3)
        If Result = 1 Then
            MsgBox"Elastic footing removed."
        Else
            MsgBox"Elastic footing not removed."
        End If

        Set objOpenStaad = Nothing
    End Sub
```

◆ RemoveElasticFootingFromNode()

VARIANT OSSupportUI::RemoveElasticFootingFromNode (const VARIANT FAR & nodeid)

Remove elastic footing support from a specific node.

Parameters

[in] **nodeid** Node Id (Type: Long).

Return values

1 if the method is successful.

0 if the method is unsuccessful.

Example: VBA

```
Option Explicit

Option Explicit

    Sub Main
        Dim objOpenStaad As Object
        Dim stdFile As String

        Set objOpenStaad = GetObject(,"StaadPro.OpenSTAAD")
        objOpenStaad.GetSTAADFile stdFile, "TRUE"
        If stdFile="" Then
            MsgBox"Bad"
            Set objOpenStaad = Nothing
            Exit Sub
        End If

        Dim Result As Long
        Result = objOpenStaad.Support.RemoveElasticFootingFromNode(2)
        If Result = 1 Then
            MsgBox"Elastic footing removed."
        Else
            MsgBox"Elastic footing not removed."
        End If

        Set objOpenStaad = Nothing
    End Sub
```

◆ RemoveElasticMat()

VARIANT OSSupportUI::RemoveElasticMat (const VARIANT FAR & supportid)

Remove elastic mat support for a specific support Id.

Parameters

> [in] **supportid** (Type: Long).

Return values

> **TRUE**   Successful.

> **FALSE** Unsuccessful.

Example: VBA

```
Option Explicit

    Sub Main
        Dim objOpenStaad As Object
        Dim stdFile As String
        Dim supportId As Long
        Dim Result1 As Boolean

        Set objOpenStaad = GetObject(,"StaadPro.OpenSTAAD")
        objOpenStaad.GetSTAADFile stdFile, "TRUE"
        supportId = 4
        Result1 = objOpenStaad.support.RemoveElasticMat(supportId)
    End Sub
```

◆ RemoveElasticMatFromNode()

VARIANT OSSupportUI::RemoveElasticMatFromNode (const VARIANT FAR & nodeid)

Remove elastic mat support from a specific node.

Parameters

      `[in]` **nodeid** (Type: Long).

Return values

      TRUE Successful.

      FALSE Unsuccessful.

Example: VBA

```
Option Explicit

    Sub Main
        Dim objOpenStaad As Object
        Dim stdFile As String
        Dim nodeid As Long
        Dim Result As Boolean

        Set objOpenStaad = GetObject(,"StaadPro.OpenSTAAD")
        objOpenStaad.GetSTAADFile stdFile, "TRUE"
        nodeid = 7
        Result = objOpenStaad.support.RemoveElasticMatFromNode(nodeid)
    End Sub
```

◆ RemovePlateMat()

VARIANT OSSupportUI::RemovePlateMat (const VARIANT FAR & supportId)

Remove plate mat support for a specific support Id.

Parameters

      [in] **supportid** (Type: Long).

Return values

      TRUE Successful.

      FALSE Unsuccessful.

Example: VBA

```
Option Explicit

    Sub Main
        Dim objOpenStaad As Object
        Dim stdFile As String
        Dim supportId As Long
        Dim Result1 As Boolean

        Set objOpenStaad = GetObject(,"StaadPro.OpenSTAAD")
        objOpenStaad.GetSTAADFile stdFile, "TRUE"
        supportId = 4
        Result1 = objOpenStaad.support.RemovePlateMat(supportId)
    End Sub
```

◆ RemovePlateMatFromPlate()

VARIANT OSSupportUI::RemovePlateMatFromPlate (const VARIANT FAR & varPlateNo)

Remove elastic mat support from a specific node.

Parameters

[in] **nodeid** (Type: Long).

Return values

TRUE Successful.

FALSE Unsuccessful.

Example: VBA

```
Option Explicit
    Sub Main
        Dim objOpenStaad As Object
        Dim stdFile As String
        Set objOpenStaad = GetObject(,"StaadPro.OpenSTAAD")
        objOpenStaad.GetSTAADFile stdFile, "TRUE"
        If stdFile="" Then
            MsgBox"Bad"
            Set objOpenStaad = Nothing
            Exit Sub
        End If
        Dim plateId As Long
        plateId = 56
        Dim resVal As Boolean
        resVal = objOpenStaad.Support.RemovePlateMatFromPlate(plateId)
        If(resVal)Then
            MsgBox"successful"
        Else
            MsgBox"Error"
        End If
        Set objOpenStaad = Nothing
    End Sub
```

◆ RemoveSupportFromNode()

VARIANT OSSupportUI::RemoveSupportFromNode (const VARIANT FAR & nNodeNo)

Removes support assignment from a node.

Parameters

[in] **nNodeNo** The node number.

Return values

1/TRUE OK.

0/FALSE General error.

Example: VBA

```
Sub RemoveSupportFromNode()
  Dim SelNodesNo As Long
  Dim SelNodes() As Long
  Dim pinnedSupport As Long
  Dim assignSupport As Variant
  Dim i As Integer

'Launch OpenSTAAD Object
  Set objOpenSTAAD = GetObject(, "StaadPro.OpenSTAAD")

'Get no. of selected nodes
  SelNodesNo = objOpenSTAAD.Geometry.GetNoOfSelectedNodes

'Create pinned support
  pinnedSupport = objOpenSTAAD.Support.CreateSupportPinned


  If (SelNodesNo > 0) Then
    ReDim SelNodes(SelNodesNo - 1) As Long

    'Get selected nodes
        objOpenSTAAD.Geometry.GetSelectedNodes SelNodes, 1

    'Assign pinned support to nodes
        For i = 0 To UBound(SelNodes)
            assignSupport = objOpenSTAAD.Support.AssignSupportToNode(SelNodes(i),
      pinnedSupport)
        Next

    'Removes support assignment from node #2
    Dim rmvSupport As Variant
    rmvSupport = objOpenSTAAD.Support.RemoveSupportFromNode(2)
    MsgBox objOpenSTAAD.Support.GetSupportCount, vbOKOnly

    'Create a new view
        objOpenSTAAD.View.CreateNewViewForSelections
  Else
    MsgBox "No nodes are currently selected.", vbOKOnly
  End If


  Set objOpenSTAAD = Nothing
End Sub
```

See also

      OSSupportUI::CreateSupportFixed

      OSSupportUI::CreateSupportPinned

      OSSupportUI::CreateSupportFixedBut

◆ SetSupportUniqueID()

void OSSupportUI::SetSupportUniqueID (const VARIANT FAR & nSupportNo,

const VARIANT FAR & szName)

Set unique ID for a support item.

Parameters

[in] **nSupportNo** The support item number.

[in] **szName**   A GUID string

Example: VBA

```vba
Sub GetandSetSupportUniqueID()
  Dim SelNodesNo As Long
  Dim SelNodes() As Long
  Dim fixedSupport As Long
  Dim pinnedSupport As Long
  Dim fixedButSupport As Long
  Dim assignSupport As Variant
  Dim supportName As Variant
  Dim getSupportID As Variant
  Dim i As Integer

'Launch OpenSTAAD Object
  Set objOpenSTAAD = GetObject(, "StaadPro.OpenSTAAD")

'Get no. of selected nodes
  SelNodesNo = objOpenSTAAD.Geometry.GetNoOfSelectedNodes

'Create fixed support
  fixedSupport = objOpenSTAAD.Support.CreateSupportFixed

'Create pinned support
  pinnedSupport = objOpenSTAAD.Support.CreateSupportPinned

'Create FixedBut support
  Dim release(5) As Double
  Dim spring(5) As Double
  fixedButSupport = objOpenSTAAD.Support.CreateSupportFixedBut(release, spring)


  If (SelNodesNo > 0) Then
    ReDim SelNodes(SelNodesNo - 1) As Long

    'Get selected nodes
        objOpenSTAAD.Geometry.GetSelectedNodes SelNodes, 1

    'Assign pinned support to nodes
        For i = 0 To UBound(SelNodes)
            assignSupport = objOpenSTAAD.Support.AssignSupportToNode(SelNodes(i),
        pinnedSupport)
         Next

    'Assign pinned support to nodes
        'assignSupport = objOpenSTAAD.Support.AssignSupportToNode(SelNodes,
        pinnedSupport)

    'Get Support Count
```

```
            MsgBox objOpenSTAAD.Support.GetSupportCount, vbOKOnly

        'Get Support Name
            supportName = objOpenSTAAD.Support.GetSupportName(fixedSupport)
            MsgBox supportName, vbInformation + vbOKOnly

        'Set Support Unique ID
            objOpenSTAAD.Support.SetSupportUniqueID fixedButSupport, "B9863808-2111-46d9-
            A9D0-811E7166EA5A"

        'Get Support Unique ID
            getSupportID = objOpenSTAAD.Support.GetSupportUniqueID(fixedButSupport)
            MsgBox getSupportID, vbInformation + vbOKOnly

        'Create a new view
            objOpenSTAAD.View.CreateNewViewForSelections
      Else
        MsgBox "No nodes are currently selected.", vbOKOnly
      End If


      Set objOpenSTAAD = Nothing
    End Sub
```

See also

OSSupportUI::CreateSupportFixed

OSSupportUI::CreateSupportPinned

OSSupportUI::CreateSupportFixedBut