Load Items: Member Load

Functions

afx_msg VARIANT	**OSLoadUI::AddMemberUniformForce** (const VARIANT FAR &varBeamNo, const VARIANT FAR &varDirection, const VARIANT FAR &varForce, const VARIANT FAR &varD1, const VARIANT FAR &varD2, const VARIANT FAR &varD3) Adds UNIFORM FORCE to beam(s).
afx_msg VARIANT	**OSLoadUI::AddMemberUniformMoment** (const VARIANT FAR &varBeamNo, const VARIANT FAR &varDirection, const VARIANT FAR &varMoment, const VARIANT FAR &varD1, const VARIANT FAR &varD2, const VARIANT FAR &varD3) Adds UNIFORM MOMENT to beam(s).
afx_msg VARIANT	**OSLoadUI::AddMemberConcForce** (const VARIANT FAR &varBeamNo, const VARIANT FAR &varDirection, const VARIANT FAR &varForce, const VARIANT FAR &varD1, const VARIANT FAR &varD2) Adds CONCENTRATED FORCE to beam(s).
afx_msg VARIANT	**OSLoadUI::AddMemberConcMoment** (const VARIANT FAR &varBeamNo, const VARIANT FAR &varDirection, const VARIANT FAR &varMoment, const VARIANT FAR &varD1, const VARIANT FAR &varD2) Adds CONCENTRATED MOMENT to beam(s).
afx_msg VARIANT	**OSLoadUI::AddMemberLinearVari** (const VARIANT FAR &varBeamNo, const VARIANT FAR &varDirection, const VARIANT FAR &varW1, const VARIANT FAR &varW2, const VARIANT FAR &varW3) Adds LINEARLY VARYING load to beam(s).
afx_msg VARIANT	**OSLoadUI::AddMemberTrapezoidal** (const VARIANT FAR &varBeamNo, const VARIANT FAR &varDirection, const VARIANT FAR &varW1, const VARIANT FAR &varW2, const VARIANT FAR &varD1, const VARIANT FAR &varD2) Adds trapezoidal linearly varying load to beam(s).
afx_msg VARIANT	**OSLoadUI::AddMemberAreaLoad** (const VARIANT FAR &varBeamNo, const VARIANT FAR &varLoad) Adds AREA LOAD to beam(s).
afx_msg VARIANT	**OSLoadUI::AddMemberFixedEnd** (const VARIANT FAR &varBeamNo, const VARIANT FAR &varLoadStart, const VARIANT FAR &varLoadEnd) Adds FIXED END LOAD to beam(s).
afx_msg VARIANT	**OSLoadUI::GetUDLLoadCount** (const VARIANT FAR &nBeamNo) Gets the number of uniformly distributed load(s) present for the specified beam.
afx_msg VARIANT	**OSLoadUI::GetUDLLoads** (const VARIANT FAR &nBeamNo, VARIANT FAR &varDirection, &varForce, VARIANT FAR &varD1, VARIANT FAR &varD2, VARIANT FAR &varD3)

	Returns the uniformly distributed load(s) with all the parameters for the specified member.
afx_msg VARIANT	**OSLoadUI::GetUNIMomentCount** (const VARIANT FAR &nBeamNo) Gets the count of uniformly distributed (UNI) moment applied to the specified member.
afx_msg VARIANT	**OSLoadUI::GetUNIMoments** (const VARIANT FAR &nBeamNo, VARIANT FAR &varDirection, VARIANT FAR &varForce, VARIANT FAR &varD1, VARIANT FAR &varD2, VARIANT FAR &varD3) Returns the uniformly distributed (UNI) moments with all the parameters for the specified member.
afx_msg VARIANT	**OSLoadUI::GetTrapLoadCount** (const VARIANT FAR &nBeamNo) Get number of trapezoidal load(s) present for the specified beam.
afx_msg VARIANT	**OSLoadUI::GetTrapLoads** (const VARIANT FAR &nBeamNo, VARIANT FAR &varDirection, VARIANT FAR &varW1, VARIANT FAR &varW2, VARIANT FAR &varD1, VARIANT FAR &varD2) Returns the trapezoidal load(s) with all the parameters for the specified member.
afx_msg long	**OSLoadUI::GetLinearVaryingLoadCount** (const VARIANT FAR &nBeamNo) Returns number of linear varying load(s) present for the specified beam.
afx_msg VARIANT	**OSLoadUI::GetLinearVaryingLoads** (const VARIANT FAR &nBeamNo, VARIANT FAR &varDirection, VARIANT FAR &varW1, VARIANT FAR &varW2, VARIANT FAR &varW3) Returns parameters for defining linear varying loads for specified beam.
afx_msg VARIANT	**OSLoadUI::GetConcForceCount** (const VARIANT FAR &varBeamNo) Get number of concentrated force(s) present for the specified beam.
afx_msg VARIANT	**OSLoadUI::GetConcForces** (const VARIANT FAR &varBeamNo, VARIANT FAR &varDirection, VARIANT FAR &varForce, VARIANT FAR &varD1, VARIANT FAR &varD2) Returns the concentrated force(s) with all the parameters for the specified member.
afx_msg VARIANT	**OSLoadUI::GetConcMomentCount** (const VARIANT FAR &varBeamNo) Gets number of concentrated moment(s) present for the specified beam.
afx_msg VARIANT	**OSLoadUI::GetConcMoments** (const VARIANT FAR &varBeamNo, VARIANT FAR &varDirection, VARIANT FAR &varMoment, VARIANT FAR &varD1, VARIANT FAR &varD2) Returns the concentrated moment(s) with all the parameters for the specified member.
afx_msg VARIANT	**OSLoadUI::GetMemberLoadInfo** (const VARIANT FAR &varloadIndex, VARIANT FAR &varDir, VARIANT FAR &varForce, VARIANT FAR &varDistParams) Gets member load(s) information generated by specified load item in specified load case.

Detailed Description

These functions are related to member load.

Function Documentation

◆ AddMemberAreaLoad()

VARIANT OSLoadUI::AddMemberAreaLoad (const VARIANT FAR & varBeamNo,
const VARIANT FAR & varLoad)

Adds AREA LOAD to beam(s).

Parameters

[in] **varBeamNo** Member number ID(s) VARIANT array.

[in] **varLoad** Magnitude of the load value.

Return values

0 OK.

-1 General error.

C++ Syntax

```
// Add member area load.
VARIANT RetVal = OSLoadUI::AddMemberAreaLoad(varBeamNo, 2.0);
```

VBA Syntax

```
' Add member area load.
Dim RetVal As VARIANT = OSLoadUI.AddMemberAreaLoad(varBeamNo, 2.0)
```

◆ AddMemberConcForce()

```
VARIANT OSLoadUI::AddMemberConcForce ( const VARIANT FAR & varBeamNo,
                                       const VARIANT FAR & varDirection,
                                       const VARIANT FAR & varForce,
                                       const VARIANT FAR & varD1,
                                       const VARIANT FAR & varD2 )
```

Adds CONCENTRATED FORCE to beam(s).

Parameters

[in]	**varBeamNo**	Member number ID(s) VARIANT array.
[in]	**varDirection**	Load direction: (= 1 to 6 for LocalX, LocalY, LocalZ, GlobalX, GlobalY and GlobalZ, respectively).
[in]	**varForce**	Magnitude of the concentrate force in current units.
[in]	**varD1**	Distance from the start of the member to concentrated force or moment.
[in]	**varD2**	Perpendicular distance from the member shear center to the local plane of loading. For additional information, please refer to Section 5.32.2 of the Technical Reference manual.

Return values

0 OK.

-1 General error.

C++ Syntax

```
// Add member concentrated load of -6.43 units to member(s) in GY direction.
VARIANT RetVal = OSLoadUI::AddMemberConcForce(varBeamNo, 5, -6.43, 4.7, 0.92);
```

VBA Syntax

```
' Add member concentrated load of -6.43 units to member(s) in GY direction.
Dim RetVal As VARIANT = OSLoadUI.AddMemberConcForce(varBeamNo, 5, -6.43, 4.7, 0.92)
```

See also

OSLoadUI::GetConcForceCount

OSLoadUI::GetConcForces

OSLoadUI::GetMemberLoadInfo

◆ AddMemberConcMoment()

VARIANT OSLoadUI::AddMemberConcMoment (const VARIANT FAR & varBeamNo,
const VARIANT FAR & varDirection,
const VARIANT FAR & varMoment,
const VARIANT FAR & varD1,
const VARIANT FAR & varD2)

Adds CONCENTRATED MOMENT to beam(s).

Parameters

[in]	**varBeamNo**	Member number ID(s) VARIANT array.
[in]	**varDirection**	Load direction: (= 1 to 6 for LocalX, LocalY, LocalZ, GlobalX, GlobalY and GlobalZ, respectively).
[in]	**varMoment**	Magnitude of the concentrate moment in current units.
[in]	**varD1**	Distance from the start of the member to concentrated force or moment.
[in]	**varD2**	Perpendicular distance from the member shear center to the local plane of loading. For additional information, please refer to Section 5.32.2 of the Technical Reference manual.

Return values

0 OK.

-1 General error.

C++ Syntax

```
// Add member concentrated moment(s) units to member 2 in GY direction.
VARIANT RetVal = OSLoadUI::AddMemberConcMoment(varBeamNo, 5, 2.0, 0.0, 0.0, 0.0);
```

VBA Syntax

```
' Add member concentrated moment(s) units to member 2 in GY direction.
Dim RetVal As VARIANT = OSLoadUI.AddMemberConcMoment(varBeamNo, 5, 2.0, 0.0, 0.0, 0.0)
```

See also

OSLoadUI::GetConcMomentCount

OSLoadUI::GetConcMoments

OSLoadUI::GetMemberLoadInfo

◆ AddMemberFixedEnd()

VARIANT OSLoadUI::AddMemberFixedEnd (const VARIANT FAR & varBeamNo,
const VARIANT FAR & varLoadStart,
const VARIANT FAR & varLoadEnd)

Adds FIXED END LOAD to beam(s).

Parameters

[in] **varBeamNo** Member number ID(s) VARIANT array.

[in] **varLoadStart** Load at starting point, VARIANT array of 6 double elements, indexes from 0 to 5 stands for FX, FY, FZ, MX, MY, MZ.

[in] **varLoadEnd** Load at stopping point, VARIANT array of 6 double elements, indexes from 0 to 5 stands for FX, FY, FZ, MX, MY, MZ. For additional information, please refer to Section 5.32.2 of the Technical Reference manual.

Return values

0 OK.

-1 General error.

C++ Syntax

```
// Add member fixed end load.
VARIANT RetVal = OSLoadUI::AddMemberFixedEnd(varBeamNo, varLoadStart, varLoadEnd);
```

VBA Syntax

```
' Add member fixed end load.
Dim RetVal As VARIANT = OSLoadUI.AddMemberFixedEnd(varBeamNo, varLoadStart, varLoadEnd)
```

◆ AddMemberLinearVari()

```
VARIANT OSLoadUI::AddMemberLinearVari ( const VARIANT FAR & varBeamNo,
                                        const VARIANT FAR & varDirection,
                                        const VARIANT FAR & varW1,
                                        const VARIANT FAR & varW2,
                                        const VARIANT FAR & varW3 )
```

Adds LINEARLY VARYING load to beam(s).

Parameters

[in]	**varBeamNo**	Member number ID(s) VARIANT array.
[in]	**varDirection**	Load direction: (= 1 to 3 for local X, Y and Z, respectively).
[in]	**varW1**	Load at the start of the member.
[in]	**varW2**	Load at the end of the member.
[in]	**varW3**	Load in the middle of the member (for triangular load). For additional information, please refer to Section 5.32.2 of the Technical Reference manual.

Return values

0	OK.
-1	General error.
-8001	Load direction is invalid.

C++ Syntax

```
// Add member linearly varying to member(s) in GY direction.
VARIANT RetVal = OSLoadUI::AddMemberLinearVari(varBeamNo, 2, 2.0, 0.0, 0.0);
```

VBA Syntax

```
' Add member linearly varying to member(s) in GY direction.
Dim RetVal As VARIANT = OSLoadUI.AddMemberLinearVari(varBeamNo, 2, 2.0, 0.0, 0.0)
```

See also

OSLoadUI::GetLinearVaryingLoadCount

OSLoadUI::GetLinearVaryingLoads

OSLoadUI::GetMemberLoadInfo

◆ AddMemberTrapezoidal()

```
VARIANT OSLoadUI::AddMemberTrapezoidal ( const VARIANT FAR & varBeamNo,
                                         const VARIANT FAR & varDirection,
                                         const VARIANT FAR & varW1,
                                         const VARIANT FAR & varW2,
                                         const VARIANT FAR & varD1,
                                         const VARIANT FAR & varD2 )
```

Adds trapezoidal linearly varying load to beam(s).

Parameters

[in]	**varBeamNo**	Member number ID(s) VARIANT array.
[in]	**varDirection**	Load direction: (= 1 to 9 for LocalX, LocalY, LocalZ, GlobalX, GlobalY, GlobalZ, ProjectedX, ProjectedY, ProjectedZ, respectively).
[in]	**varW1**	Load at the start of the member.
[in]	**varW2**	Load at the end of the member.
[in]	**varD1**	Distance from the start of the member to loading starting point.
[in]	**varD2**	Distance from the start of the member to loading stopping point. If **dD1** and **dD2** are not given, the load is assumed to cover the full member length. For additional information, please refer to Section 5.32.2 of the Technical Reference manual.

Return values

0 OK.

-1 General error.

C++ Syntax

```
// Add member linearly varying to member(s) in GY direction.
VARIANT RetVal = OSLoadUI::AddMemberTrapezoidal(varBeamNo, 2, 2.0, 0.0, 0.0);
```

VBA Syntax

```
' Add member linearly varying to member(s) in GY direction.
Dim RetVal As VARIANT = OSLoadUI.AddMemberTrapezoidal(varBeamNo, 2, 2.0, 0.0, 0.0)
```

See also

OSLoadUI::GetTrapLoadCount

OSLoadUI::GetTrapLoads

OSLoadUI::GetMemberLoadInfo

orce()

```
VARIANT OSLoadUI::AddMemberUniformForce ( const VARIANT FAR & varBeamNo,
                                          const VARIANT FAR & varDirection,
                                          const VARIANT FAR & varForce,
                                          const VARIANT FAR & varD1,
                                          const VARIANT FAR & varD2,
                                          const VARIANT FAR & varD3 )
```

Adds UNIFORM FORCE to beam(s).

Parameters

[in]	**varBeamNo**	Member number ID(s) VARIANT array.
[in]	**varDirection**	Load direction: (= 1 to 9 for LocalX, LocalY, LocalZ, GlobalX, GlobalY, GlobalZ, ProjectedX, ProjectedY, ProjectedZ, respectively).
[in]	**varForce**	Magnitude of the uniform force in current units.
[in]	**varD1**	Distance from the start of the member to the start of the load.
[in]	**varD2**	Distance from the start of the member to the end of the load.
[in]	**varD3**	Perpendicular distance from the member shear center to the local plane of loading. For additional information, please refer to Section 5.32.2 of the Technical Reference manual.

Return values

0 OK.

-1 General error.

C++ Syntax

```
// Add member uniform load of 2 units to member(s) in GY direction.
VARIANT RetVal = OSLoadUI::AddMemberUniformForce(varBeamNo, 5, 2.0, 0.0, 0.0, 0.0);
```

VBA Syntax

```
' Add member uniform load of 2 units to member(s) in GY direction.
Dim RetVal As VARIANT = OSLoadUI.AddMemberUniformForce(varBeamNo, 5, 2.0, 0.0, 0.0, 0.0)
```

See also

OSLoadUI::GetUDLLoadCount

OSLoadUI::GetUDLLoads

OSLoadUI::GetMemberLoadInfo

◆ AddMemberUniformMoment()

VARIANT OSLoadUI::AddMemberUniformMoment (const VARIANT FAR & varBeamNo,
const VARIANT FAR & varDirection,
const VARIANT FAR & varMoment,
const VARIANT FAR & varD1,
const VARIANT FAR & varD2,
const VARIANT FAR & varD3)

Adds UNIFORM MOMENT to beam(s).

Parameters

[in]	**varBeamNo**	Member number ID(s) VARIANT array.
[in]	**varDirection**	Load direction: (= 1 to 9 for LocalX, LocalY, LocalZ, GlobalX, GlobalY, GlobalZ, ProjectedX, ProjectedY, ProjectedZ, respectively).
[in]	**varMoment**	Magnitude of the uniform moment in current units.
[in]	**varD1**	Distance from the start of the member to the start of the load.
[in]	**varD2**	Distance from the start of the member to the end of the load.
[in]	**varD3**	Perpendicular distance from the member shear center to the local plane of loading. For additional information, please refer to Section 5.32.2 of the Technical Reference manual.

Return values

0 OK.

-1 General error.

C++ Syntax

```
// Add member uniform moment of 2 units to member(s) in GY direction.
VARIANT RetVal = OSLoadUI::AddMemberUniformMoment(varBeamNo, 5, 2.0, 0.0, 0.0, 0.0);
```

VBA Syntax

```
' Add member uniform moment of 2 units to member(s) in GY direction.
Dim RetVal As VARIANT = OSLoadUI.AddMemberUniformMoment(varBeamNo, 5, 2.0, 0.0, 0.0, 0.0)
```

See also

OSLoadUI::GetUNIMomentCount

OSLoadUI::GetUNIMoments

OSLoadUI::GetMemberLoadInfo

◆ GetConcForceCount()

VARIANT OSLoadUI::GetConcForceCount (const VARIANT FAR & nBeamNo)

Get number of concentrated force(s) present for the specified beam.

Parameters

[in] **nBeamNo** Beam number ID.

Return values

<Val> The number of concentrated force item(s) applied.

-1 General error.

C++ Syntax

```
// Gets the number of concentrated force item(s) at beam #13.
VARIANT nConcForceLoad = OSLoadUI::GetConcForceCount(13);
```

VBA Syntax

```
' Gets the number of concentrated force item(s) at beam #13.
Dim RetVal As VARIANT = OSLoadUI.GetConcForceCount(13)
```

See also

OSLoadUI::AddMemberConcForce

OSLoadUI::GetConcForces

◆ GetConcForces()

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```
VARIANT OSLoadUI::GetConcForces ( const VARIANT FAR & nBeamNo,
                                  VARIANT FAR &       varDirection,
                                  VARIANT FAR &       varForce,
                                  VARIANT FAR &       varD1,
                                  VARIANT FAR &       varD2 )
```

Returns the concentrated force(s) with all the parameters for the specified member.

Parameters

[in]	**nBeamNo**	Beam number ID.
[out]	**varDirection**	Load direction = 1 to 6 for LocalX, LocalY, LocalZ, GlobalX, GlobalY and GlobalZ, respectively (in VARIANT array).
[out]	**varForce**	Magnitude of the concentrate force in current units (in VARIANT array).
[out]	**varD1**	Distance from the start of the member to concentrated force or moment (in VARIANT array).
[out]	**varD2**	Perpendicular distance from the member shear center to the local plane of loading (in VARIANT array).

Return values

0 OK

-1 General error.

C++ Syntax

```
// Gets concentrate force item(s) at beam #13.
VARIANT RetVal = OSLoadUI::GetConcForces(13, &varDirection, &varForce, &varD1, &varD2);
```

VBA Syntax

```
' Gets concentrate force item(s) at beam #13.
Dim RetVal As VARIANT = OSLoadUI.GetConcForces(13, &varDirection, &varForce, &varD1,
       &varD2)
```

See also

OSLoadUI::AddMemberConcForce

OSLoadUI::GetConcForceCount

◆ GetConcMomentCount()

VARIANT OSLoadUI::GetConcMomentCount (const VARIANT FAR & nBeamNo)

Gets number of concentrated moment(s) present for the specified beam.

Parameters

[in] **nBeamNo** Beam number ID.

Return values

<Val> The number of concentrated moment item(s) applied.

-1 General error.

C++ Syntax

```
// Gets the number of concentrated moment item(s) at beam #13.
VARIANT nConcMomentLoad = OSLoadUI::GetConcMomentCount(13);
```

VBA Syntax

```
' Gets the number of concentrated moment item(s) at beam #13.
Dim nConcMomentLoad As VARIANT = OSLoadUI.GetConcMomentCount(13)
```

See also

OSLoadUI::AddMemberConcMoment

OSLoadUI::GetConcMoments

◆ GetConcMoments()

```
VARIANT OSLoadUI::GetConcMoments ( const VARIANT FAR & nBeamNo,
                                   VARIANT FAR &        varDirection,
                                   VARIANT FAR &        varMoment,
                                   VARIANT FAR &        varD1,
                                   VARIANT FAR &        varD2 )
```

Returns the concentrated moment(s) with all the parameters for the specified member.

Parameters

[in]	**nBeamNo**	Beam number ID.
[out]	**varDirection**	Load direction = 1 to 6 for LocalX, LocalY, LocalZ, GlobalX, GlobalY and GlobalZ, respectively (in VARIANT array).
[out]	**varMoment**	Magnitude of the concentrate moment in current units (in VARIANT array).
[out]	**varD1**	Distance from the start of the member to concentrated force or moment (in VARIANT array).
[out]	**varD2**	Perpendicular distance from the member shear center to the local plane of loading (in VARIANT array).

Return values

0 OK

-1 General error.

C++ Syntax

```
// Gets concentrate moment item(s) at beam #13.
VARIANT RetVal = OSLoadUI::GetConcMoments(13, &varDirection, &varMoment, &varD1, &varD2);
```

VBA Syntax

```
' Gets concentrate moment item(s) at beam #13.
Dim RetVal As VARIANT = OSLoadUI.GetConcMoments(13, &varDirection, &varMoment, &varD1,
       &varD2)
```

See also

OSLoadUI::AddMemberConcMoment

OSLoadUI::GetConcMomentCount

◆ GetLinearVaryingLoadCount()

long OSLoadUI::GetLinearVaryingLoadCount (const VARIANT FAR & nBeamNo)

Returns number of linear varying load(s) present for the specified beam.

Parameters

[in] **nBeamNo** Beam number ID.

Return values

<Val> The number of linear varying load item(s) applied.

-1 General error.

C++ Syntax

```
// Gets the number of linear varying load item(s) at beam #13.
long nLinearVaringLoad = OSLoadUI::GetLinearVaryingLoadCount(13);
```

VBA Syntax

```
' Gets the number of linear varying load item(s) at beam #13.
Dim nLinearVaringLoad As long = OSLoadUI.GetLinearVaryingLoadCount(13)
```

See also

OSLoadUI::AddMemberLinearVari

OSLoadUI::GetLinearVaryingLoads

◆ GetLinearVaryingLoads()

```
VARIANT OSLoadUI::GetLinearVaryingLoads ( const VARIANT FAR & nBeamNo,
                                          VARIANT FAR &       varDirection,
                                          VARIANT FAR &       varW1,
                                          VARIANT FAR &       varW2,
                                          VARIANT FAR &       varW3 )
```

Returns parameters for defining linear varying loads for specified beam.

Parameters

[in]	**nBeamNo**	Beam number ID.
[out]	**varDirection**	Load direction = 1 to 3 for local X, Y and Z, respectively (in VARIANT array).
[out]	**varW1**	Load at the start of the member (in VARIANT array).
[out]	**varW2**	Load at the end of the member (in VARIANT array).
[out]	**varW3**	Load in the middle of the member (for triangular load) (in VARIANT array).

Return values

0 OK

-1 General error.

C++ Syntax

```
// Gets linear varying load item(s) at beam #13.
VARIANT RetVal = OSLoadUI::GetLinearVaryingLoads(13, &varDirection, &varW1, &varW2,
       &varW3);
```

VBA Syntax

```
' Gets linear varying load item(s) at beam #13.
Dim RetVal As VARIANT = OSLoadUI.GetLinearVaryingLoads(13, &varDirection, &varW1, &varW2,
       &varW3)
```

See also

OSLoadUI::AddMemberLinearVari

OSLoadUI::GetLinearVaryingLoadCount

◆ GetMemberLoadInfo()

VARIANT OSLoadUI::GetMemberLoadInfo (const VARIANT FAR & varloadIndex,
VARIANT FAR & varDir,
VARIANT FAR & varForce,
VARIANT FAR & varDist)

Gets member load(s) information generated by specified load item in specified load case.

Parameters

[in] **loadIndex** Load item index (Zero based) (Type - Integer/Long).

[out] **varDir** Load direction: (= 1 to 9 for LocalX, LocalY, LocalZ, GlobalX, GlobalY, GlobalZ, ProjectedX, ProjectedY, ProjectedZ, respectively) (type - Integer/Long).

[out] **varForce** Member force parameters VARIANT array: dW1, dW2 and dW3 (see commands for add member force) (type - double Array).

[out] **varDist** Member force distances VARIANT array: dD1, dD2 and dD3 (see commands for add member force) (type - double Array).

Return values

FALSE Failed

TRUE success

C++ Syntax

```
// Gets member load(s) assigned with Uniform Force.
long RetVal = OSLoadUI::GetMemberLoadInfo(0, &varDir, &varForce, &varDist);
```

VBA Syntax

```
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 LoadIndex As Long
        Dim Dir As Long
        Dim force(2) As Double
        Dim Dist(2) As Double
        LoadIndex =0
        objOpenStaad.Load.SetLoadActive 1
        Dim bRes As Boolean
        bRes = objOpenStaad.Load.GetMemberLoadInfo(LoadIndex, Dir, force, Dist)
            MsgBox "Success"
```

```
        Else
            MsgBox"Failed"
        End If
        Set objOpenStaad = Nothing
    End Sub
```

See also

- OSLoadUI::AddMemberUniformForce
- OSLoadUI::AddMemberUniformMoment
- OSLoadUI::AddMemberConcForce
- OSLoadUI::AddMemberConcMoment
- OSLoadUI::AddMemberLinearVari
- OSLoadUI::AddMemberTrapezoidal

◆ GetTrapLoadCount()

VARIANT OSLoadUI::GetTrapLoadCount (const VARIANT FAR & nBeamNo)

Get number of trapezoidal load(s) present for the specified beam.

Parameters

[in] **nBeamNo** Beam number ID.

Return values

<Val> The number of trapezoidal load item(s) applied.

-1 General error.

C++ Syntax

```
// Gets the number of trapezoidal load item(s) at beam #13.
VARIANT nTrapLoad = OSLoadUI::GetTrapLoadCount(13);
```

VBA Syntax

```
' Gets the number of trapezoidal load item(s) at beam #13.
Dim nTrapLoad As VARIANT = OSLoadUI.GetTrapLoadCount(13)
```

See also

- OSLoadUI::AddMemberTrapezoidal
- OSLoadUI::GetTrapLoads

◆ GetTrapLoads()

```
VARIANT OSLoadUI::GetTrapLoads ( const VARIANT FAR & nBeamNo,
                                 VARIANT FAR &       varDirection,
                                 VARIANT FAR &       varW1,
                                 VARIANT FAR &       varW2,
                                 VARIANT FAR &       varD1,
                                 VARIANT FAR &       varD2 )
```

Returns the trapezoidal load(s) with all the parameters for the specified member.

Parameters

[in]	**nBeamNo**	Beam number ID.
[out]	**varDirection**	Load direction = 1 to 9 for LocalX, LocalY, LocalZ, GlobalX, GlobalY, GlobalZ, ProjectedX, ProjectedY, ProjectedZ, respectively (in VARIANT array).
[out]	**varW1**	Load at the start of the member (in VARIANT array).
[out]	**varW2**	Load at the end of the member (in VARIANT array).
[out]	**varD1**	Distance from the start of the member to loading starting point (in VARIANT array).
[out]	**varD2**	Distance from the start of the member to loading stopping point (in VARIANT array).

Return values

0 OK

-1 General error.

C++ Syntax

```
// Gets trapezoidal load item(s) at beam #13.
VARIANT RetVal = OSLoadUI::GetTrapLoads(13, &varDirection, &varW1, &varW2, &varD1,
       &varD2);
```

VBA Syntax

```
' Gets trapezoidal load item(s) at beam #13.
Dim RetVal As VARIANT = OSLoadUI.GetTrapLoads(13, &varDirection, &varW1, &varW2, &varD1,
       &varD2)
```

See also

OSLoadUI::AddMemberTrapezoidal

OSLoadUI::GetTrapLoadCount

◆ GetUDLLoadCount()

VARIANT OSLoadUI::GetUDLLoadCount (const VARIANT FAR & nBeamNo)

Gets the number of uniformly distributed load(s) present for the specified beam.

Parameters

[in] **nBeamNo** The beam number ID.

Return values

<Val> The number of uniformly distributed load item(s) applied.

-1 General error.

C++ Syntax

```
// Gets the number of uniformly distributed load item(s) at beam #13.
VARIANT nUDLLoad = OSLoadUI::GetUDLLoadCount(13);
```

VBA Syntax

```
' Gets the number of uniformly distributed load item(s) at beam #13.
Dim nUDLLoad As VARIANT = OSLoadUI.GetUDLLoadCount(13)
```

See also

OSLoadUI::AddMemberUniformForce

OSLoadUI::GetUDLLoads

◆ GetUDLLoads()

```
VARIANT OSLoadUI::GetUDLLoads ( const VARIANT FAR & nBeamNo,
                                VARIANT FAR &       varDirection,
                                VARIANT FAR &       varForce,
                                VARIANT FAR &       varD1,
                                VARIANT FAR &       varD2,
                                VARIANT FAR &       varD3 )
```

Returns the uniformly distributed load(s) with all the parameters for the specified member.

Parameters

[in]	**nBeamNo**	Beam number ID.
[out]	**varDirection**	Load direction: 1 to 9 for LocalX, LocalY, LocalZ, GlobalX, GlobalY, GlobalZ, ProjectedX, ProjectedY, ProjectedZ, respectively (in VARIANT array).
[out]	**varForce**	Magnitude of the uniform force in current units (in VARIANT array).
[out]	**varD1**	Distance from the start of the member to the start of the load (in VARIANT array).
[out]	**varD2**	Distance from the start of the member to the end of the load (in VARIANT array).
[out]	**varD3**	Perpendicular distance from the member shear center to the local plane of loading (in VARIANT array).

Return values

0 OK.

-1 General error.

C++ Syntax

```
// Gets UDL loads item(s) applied at member #13.
VARIANT Retval = OSLoadUI::GetNodalLoads(13, &varDirection, &varForce, &varD1, &varD2,
       &varD3);
```

VBA Syntax

```
' Gets UDL loads item(s) applied at member #13.
Dim RetVal As VARIANT = OSLoadUI.GetNodalLoads(13, &varDirection, &varForce, &varD1,
       &varD2, &varD3)
```

See also

OSLoadUI::AddMemberUniformForce

OSLoadUI::GetUDLLoadCount

◆ GetUNIMomentCount()

VARIANT OSLoadUI::GetUNIMomentCount (const VARIANT FAR & nBeamNo)

Gets the count of uniformly distributed (UNI) moment applied to the specified member.

Parameters

[in] **nBeamNo** Beam number ID.

Return values

<Val> The number of uniformly distributed (UNI) moment item(s) applied.

-1 General error.

C++ Syntax

```
// Gets the number of UNI moment at beam #13.
VARIANT nUDLLoad = OSLoadUI::GetUNIMomentCount(13);
```

VBA Syntax

```
' Gets the number of UNI moment at beam #13.
Dim nUDLLoad As VARIANT = OSLoadUI.GetUNIMomentCount(13)
```

See also

OSLoadUI::AddMemberUniformMoment

OSLoadUI::GetUNIMoments

◆ GetUNIMoments()

```
VARIANT OSLoadUI::GetUNIMoments ( const VARIANT FAR & nBeamNo,
                                  VARIANT FAR &       varDirection,
                                  VARIANT FAR &       varForce,
                                  VARIANT FAR &       varD1,
                                  VARIANT FAR &       varD2,
                                  VARIANT FAR &       varD3 )
```

Returns the uniformly distributed (UNI) moments with all the parameters for the specified member.

Parameters

[in]	**nBeamNo**	The beam number ID.
[out]	**varDirection**	Load direction = 1 to 9 for LocalX, LocalY, LocalZ, GlobalX, GlobalY, GlobalZ, ProjectedX, ProjectedY, ProjectedZ, respectively (in VARIANT array).
[out]	**varForce**	Magnitude of the uniform moment in current units (in VARIANT array).
[out]	**varD1**	Distance from the start of the member to the start of the load (in VARIANT array).
[out]	**varD2**	Distance from the start of the member to the end of the load (in VARIANT array).
[out]	**varD3**	Perpendicular distance from the member shear center to the local plane of loading (in VARIANT array).

Return values

0 OK.

-1 General error.

C++ Syntax

```
// Gets UNI moment load item(s) at beam #13.
VARIANT RetVal = OSLoadUI::GetUNIMoments(13, &varDirection, &varForce, &varD1, &varD2,
       &varD3);
```

VBA Syntax

```
' Gets UNI moment load item(s) at beam #13.
Dim RetVal As VARIANT = OSLoadUI.GetUNIMoments(13, &varDirection, &varForce, &varD1,
       &varD2, &varD3)
```

See also

OSLoadUI::AddMemberUniformMoment

OSLoadUI::GetUNIMomentCount