Geometry

Topics

Functions

afx_msg VARIANT	**OSGeometryUI::DoTranslationalRepeat** (const VARIANT FAR &varLinkBays, const VARIANT FAR &varOpenBase, const VARIANT FAR &varAxisDir, const VARIANT FAR &varSpacingArray, const VARIANT FAR &varNoBays, const VARIANT FAR &varRenumberBay, const VARIANT FAR &varRenumberArray, const VARIANT FAR &varGeometryOnly) Performs translational repeat operation on selected entities along a linear path. For further details refer to following portion of the Help document of STAAD.Pro Home > Ribbon Control Reference > Geometry tab > Translational Repeat dialog Note: This API will work properly only if some entities (node/beam/plate/solid) are selected.
afx_msg void	**OSGeometryUI::SetFlagForHiddenEntities** (const VARIANT FAR &nFlagValue) Sets flag for consideration of hidden entities (nodes and plates) while getting count or list of those entities.
afx_msg VARIANT	**OSGeometryUI::GetFlagForHiddenEntities** () Gets flag specified for consideration of hidden entities (nodes and plates) while getting count or list of those entities.
afx_msg VARIANT	**OSGeometryUI::HasHiddenEntities** () Returns whether there are hidden plates in the model.

Detailed Description

These functions are related to build model geometry.

Function Documentation

- DoTranslationalRepeat()

```
VARIANT OSGeometryUI::DoTranslationalRepeat ( const VARIANT FAR & varLinkBays,
                                              const VARIANT FAR & varOpenBase,
                                              const VARIANT FAR & varAxisDir,
                                              const VARIANT FAR & varSpacingArray,
                                              const VARIANT FAR & varNoBays,
                                              const VARIANT FAR & varRenumberBay,
                                              const VARIANT FAR & varRenumberArray,
                                              const VARIANT FAR & varGeometryOnly )
```

private

Performs translational repeat operation on selected entities along a linear path. For further details refer to following portion of the Help document of STAAD.Pro
Home > Ribbon Control Reference > Geometry tab > Translational Repeat dialog
Note: This API will work properly only if some entities (node/beam/plate/solid) are selected.

Parameters

[in] **varLinkBays**	Boolean parameter to specify whether to generate new members between each step in the direction of the repeat (1/True = Link Bays, 0/False = Otherwise)
[in] **varOpenBase**	Boolean parameter to specify *not* to generate linking members at the base of the structure (i.e., the lowest nodes in the selection) (1/True = Open base, 0/False = Otherwise)
[in] **varAxisDir**	Long value to specify direction in global axis along which translational repeat operation is to be performed (GX = 0, GY = 1, GZ = 2)
[in] **varSpacingArray**	Array of Double to specify spacing between generated bays (size of array = varNoBays)
[in] **varNoBays**	Long parameter to specify number of generated bays (maximum no of bays that can be generated single call of the API = 100)
[in] **varRenumberBay**	Boolean parameter to specify whether to use a user-specified starting number of the members generated in each newly generated bay (1/True = Renumber, 0/True = Otherwise)
[in] **varRenumberArray**	Array of Long to specify starting member numbers for each newly generated bays (size of array = varNoBays). Can be specified as null if varRenumberBay is 0 or FALSE
[in] **varGeometryOnly**	Boolean parameter to specify whether only geometry data is to be copied (1/True = Copy geometry only, 0/False = Copy all)

Return values

1 Translational Repeat operation is successful.

0 Translational Repeat operation is unsuccessful.

VBA Syntax

```
'Do translational repeat on selected members
Dim spacingArr(1) As Double
spacingArr(0) = 10
spacingArr(1) = 12
Dim retVal As Variant
retVal = objOpenStaad.Geometry.DoTranslationalRepeat(1, 1, 3, spacingArr, 2, 0, Null, 0)
```

GetFlagForHiddenEntities()

VARIANT OSGeometryUI::GetFlagForHiddenEntities ( ) private

Gets flag specified for consideration of hidden entities (nodes and plates) while getting count or list of those entities.

Return values

nFlagValue Consider All entities = 0 (Default option), Ignore Hidden entities = 1, Only hidden entities = 2

C++ Syntax

```
//Gets flag for consideration of hidden entities
long RetVal = OSGeometryUI::GetFlagForHiddenEntities();
```

VBA Syntax

```
'Gets flag for consideration of hidden entities
Dim rValue As Long
rValue = objOpenStaad.Geometry.GetFlagForHiddenEntities()
```

See also

OSGeometryUI::SetFlagForHiddenEntities

OSGeometryUI::GetNodeCount

OSGeometryUI::GetPlateCount

OSGeometryUI::GetNodeList

OSGeometryUI::GetPlateList

HasHiddenEntities()

VARIANT OSGeometryUI::HasHiddenEntities ( ) private

Returns whether there are hidden plates in the model.

Return values

1 Hidden plates are available

0 There are no hidden plates in the model

C++ Syntax

```
long RetVal = OSGeometryUI::HasHiddenEntities();
```

VBA Syntax

```
Dim rValue As Long
rValue = objOpenStaad.Geometry.HasHiddenEntities()
```

See also

OSGeometryUI::SetFlagForHiddenEntities

OSGeometryUI::GetFlagForHiddenEntities

◆ SetFlagForHiddenEntities()

void OSGeometryUI::SetFlagForHiddenEntities (const VARIANT FAR & nFlagValue) private

Sets flag for consideration of hidden entities (nodes and plates) while getting count or list of those entities.

Parameters

[in] **nFlagValue** Consider All entities = 0 (Default option), Ignore Hidden entities = 1, Only hidden entities = 2

C++ Syntax

```
//Set flag to consider all entities
OSGeometryUI::SetFlagForHiddenEntities(0);
```

VBA Syntax

```
'Set flag to ignore hidden entities
objOpenStaad.Geometry.SetFlagForHiddenEntities(1)
```

See also

OSGeometryUI::GetFlagForHiddenEntities

OSGeometryUI::GetNodeCount

OSGeometryUI::GetPlateCount

OSGeometryUI::GetNodeList

OSGeometryUI::GetPlateList