Load Items: Repeat Load

Functions

afx_msg VARIANT	**OSLoadUI::AddRepeatLoad** (const VARIANT FAR &varLoadCaseList, const VARIANT FAR &varFactorList) Creates a primary load case using combinations of previously defined primary load cases.
afx_msg long	**OSLoadUI::AddNotionalLoad** (const VARIANT FAR &varPrimaryLoadCaseList, const VARIANT FAR &varPLFactorList, const VARIANT FAR &varPLDirectionList, const VARIANT FAR &varReferenceLoadCaseList, const VARIANT FAR &varRLFactorList, const VARIANT FAR &varRLDirectionList) Creates a Notional load case using combinations of previously defined primary load cases and Reference load cases.
afx_msg long	**OSLoadUI::GetRepeatLoadCount** () This function returns the number of repeat load commands in the active load case.
afx_msg long	**OSLoadUI::GetNoLoadFactorInRepeatLoad** (long nIndex) This function returns the number of load and factor pairs associated with a given repeat load command in the active load case.
afx_msg long	**OSLoadUI::GetRepeatLoadByIndex** (const long nIdex, VARIANT *iLoad, VARIANT *dFactor) This function gets the list of load case IDs and load factors for a given repeat load command in the active load case in the provided two pre-sized, zero indexed arrays. The size of the arrays should be first determined using the function **OSLoadUI::GetNoLoadFactorInRepeatLoad()**.
afx_msg long	**OSLoadUI::GetNotionalLoadCount** () Returns the number of Notional load.
afx_msg long	**OSLoadUI::GetNoLoadFactorDirectionInNotionalLoad** (long nIndex) Gets the no of factor for specified Notional load.
afx_msg long	**OSLoadUI::GetNotionalLoadByIndex** (long nIdex, VARIANT *iLoad, VARIANT *dFactor, VARIANT *iDirection) Gets load case(s), direction(s) and factor(s) for specified Notional load.
afx_msg long	**OSLoadUI::AddReferenceLoad** (const VARIANT FAR &varLoadCaseList, const VARIANT FAR &varFactorList) Adds a reference load item to current active load case in Load Cases Details.
afx_msg long	**OSLoadUI::GetReferenceLoadCount** () Returns the number of reference load case item(s) in current active load case.
afx_msg long	**OSLoadUI::GetNoOfSetsInReferenceLoad** (const long nIndex) Returns the number of reference load case - factor set(s) in specified reference load item.

afx_msg long	**OSLoadUI::GetReferenceLoadByIndex** (const long nIdex, VARIANT *iLoad, VARIANT *dFactor) Gets reference load item: reference load case reference number ID(s) and corresponding factor(s) for specified reference load item.
afx_msg VARIANT	**OSLoadUI::GetReferenceLoadType** (const VARIANT FAR &varLoadNo) Gets reference load Type.
afx_msg VARIANT	**OSLoadUI::GetReferenceLoadCaseTitle** (const VARIANT FAR &varLoadCombNo) Gets reference load Type Name.
afx_msg void	**OSLoadUI::BeginLoadMerging** () Begin Load Merging.
afx_msg void	**OSLoadUI::EndLoadMerging** () End Load Merging.

Detailed Description

These functions are related to Repeat Load including Repeat Load, Reference Load, Notional Load.

Function Documentation

◆ AddNotionalLoad()

```
long OSLoadUI::AddNotionalLoad ( const VARIANT FAR & varPrimaryLoadCaseList,
                                 const VARIANT FAR & varPLFactorList,
                                 const VARIANT FAR & varPLDirectionList,
                                 const VARIANT FAR & varReferenceLoadCaseList,
                                 const VARIANT FAR & varRLFactorList,
                                 const VARIANT FAR & varRLDirectionList )
```

Creates a Notional load case using combinations of previously defined primary load cases and Reference load cases.

Parameters

[in] **varPrimaryLoadCaseList**	(Primary) load case reference number ID(s) VARIANT array of integer [array of integer].
[in] **varPLFactorList**	Multiplication factor VARIANT array of Primary load cases [array of double].
[in] **varPLDirectionList**	Direction of Primary load cases [array of integer]. X Direction = 1 or GlobalLoadDirection.X Y Direction = 2 or GlobalLoadDirection.Y Z Direction = 3 or GlobalLoadDirection.Z
[in] **varReferenceLoadCaseList**	(Reference) load case reference number ID(s) VARIANT array [array of integer].
[in] **varRLFactorList**	Multiplication factor VARIANT array of Reference load cases [array of double].
[in] **varRLDirectionList**	Direction of Reference load cases [array of integer]. X Direction = 1 or GlobalLoadDirection.X Y Direction = 2 or GlobalLoadDirection.Y Z Direction = 3 or GlobalLoadDirection.Z

Return values

0 OK.

-1 General error.

C++ Syntax

```
// Add a Notional load of Primary load case(s) and Reference load case(s).
VARIANT RetVal = OSLoadUI::AddNotionalLoad(varPLoadCaseArray, varPMultiplyFactors,
       varPDirectionFactors,
            varRLoadCaseArray, varRMultiplyFactors, varRDirectionFactors);
```

.

VBA Syntax

```
' Add a Notional load of Primary load case(s) and Reference load case(s).
Dim RetVal As VARIANT = OSLoadUI.AddNotionalLoad(varPLoadCaseArray, varPMultiplyFactors,
                                                 tors,
```

```
varRLoadCaseArray, varRMultiplyFactors, varRDirectionFactors)
```

See also

OSLoadUI::GetNotionalLoadCount

OSLoadUI::GetNotionalLoadByIndex

OSLoadUI::GetNoLoadFactorDirectionInNotionalLoad

◆ AddReferenceLoad()

long OSLoadUI::AddReferenceLoad (const VARIANT FAR & varRefLoadCaseList,
const VARIANT FAR & varFactorList)

Adds a reference load item to current active load case in Load Cases Details.

Parameters

[in]	**varRefLoadCaseList**	VARIANt array of reference load case number ID(s) from Reference Load Definitions.
[in]	**varFactorList**	Factor(s) VARIANT array.

Return values

0 OK.

-1 General error.

C++ Syntax

```
// Add load case to active reference load.
long RetVal = OSLoadUI::AddReferenceLoad(varRefLoadCaseList, varFactorList);
```

VBA Syntax

```
' Add load case to active reference load.
Dim RetVal As long = OSLoadUI.AddReferenceLoad(varRefLoadCaseList, varFactorList)
```

See also

OSLoadUI::GetReferenceLoadCaseCount

OSLoadUI::GetReferenceLoadCaseNumbers

OSLoadUI::CreateNewReferenceLoad

OSLoadUI::SetReferenceLoadActive

OSLoadUI::GetReferenceLoadCount

OSLoadUI::GetNoOfSetsInReferenceLoad

OSLoadUI::GetReferenceLoadByIndex

◆ AddRepeatLoad()

VARIANT OSLoadUI::AddRepeatLoad (const VARIANT FAR & varLoadCaseList,
const VARIANT FAR & varFactorList)

Creates a primary load case using combinations of previously defined primary load cases.

Parameters

[in] **varLoadCaseList** (Primary) load case reference number ID(s) array (Type: Long).

[in] **varFactorList** Multiplication factor array (Type: Double).

Return values

1 If Load Case is added successfully, 0 otherwise.

C++ Syntax

```
// Add a repeat load of primary load case(s).
VARIANT RetVal = OSLoadUI::AddRepeatLoad(varLoadCaseList, varFactorList);
```

VBA Syntax

```
' Add a repeat load of primary load case(s).
Dim RetVal As VARIANT = OSLoadUI.AddRepeatLoad(varLoadCaseList, varFactorList)
```

See also

OSLoadUI::GetRepeatLoadCount

OSLoadUI::GetNoLoadFactorInRepeatLoad

OSLoadUI::GetRepeatLoadByIndex

◆ BeginLoadMerging()

void OSLoadUI::BeginLoadMerging ( )

Begin Load Merging.

C++ Syntax

```
// Begin Load Merging
OSLoadUI::BeginLoadMerging();
```

VBA Syntax

```
' Begin Load Merging
OSLoadUI.BeginLoadMerging()
```

EndLoadMerging()

void OSLoadUI::EndLoadMerging ( )

End Load Merging.

C++ Syntax

```
// End Load Merging
OSLoadUI::EndLoadMerging();
```

VBA Syntax

```
' End Load Merging
OSLoadUI.EndLoadMerging()
```

GetNoLoadFactorDirectionInNotionalLoad()

long OSLoadUI::GetNoLoadFactorDirectionInNotionalLoad (long nIndex)

Gets the no of factor for specified Notional load.

Parameters

[in] **nIndex** The index for Notional load.

Return values

<Val> The factor for specified Notional load.

-1 General error.

C++ Syntax

```
// Get the factor for Notional load #1.
long dFactor = OSLoadUI::GetNoLoadFactorDirectionInNotionalLoad(1);
```

VBA Syntax

```
' Get the factor for Notional load #1.
Dim dFactor As long = OSLoadUI.GetNoLoadFactorDirectionInNotionalLoad(1)
```

See also

OSLoadUI::AddNotionalLoad

OSLoadUI::GetNotionalLoadCount

OSLoadUI::GetNotionalLoadByIndex

◆ GetNoLoadFactorInRepeatLoad()

long OSLoadUI::GetNoLoadFactorInRepeatLoad (long nIndex)

This function returns the number of load and factor pairs associated with a given repeat load command in the active load case.

Parameters

[in] **nIndex** The index(One based) for repeat load.

Return values

<Val> Number of load and factor pairs associated with a given repeat load command in the active load case. To set the active load case use: - VARIANT **OSLoadUI::SetLoadActive(const VARIANT FAR & varLoadNo)**. To get the active load case use:- VARIANT **OSLoadUI::GetActiveLoad()**

-1 in case of invalid repeat load index.

C++ Syntax

```
// Get the number of load/factor pairs for repeat load #1.
long dFactor = OSLoadUI::GetNoLoadFactorInRepeatLoad(1);
```

VBA Syntax

```
' Get the number of load/factor pairs for repeat load #1.
Option Explicit
Sub Main
     Dim objOpenStaad As Object
     Dim stdFile As String
     Set objOpenStaad = GetObject(,"StaadPro.OpenSTAAD")
     objOpenStaad.GetSTAADFile stdFile, "TRUE"

     Dim dFactor As Long
     Dim bRes As Boolean

     bRes = objOpenStaad.Load.SetLoadActive(1)
     If bRes = True Then
          dFactor = objOpenStaad.Load.GetNoLoadFactorInRepeatLoad(1)
          If dFactor <> -1 Then  MsgBox("Number of factors in repeat load: " &dFactor)
     Else
         MsgBox("Not able to set active Load Case ")
     End If
 End Sub
```

See also

OSLoadUI::AddRepeatLoad

OSLoadUI::GetRepeatLoadCount

OSLoadUI::GetRepeatLoadByIndex

nceLoad()

long OSLoadUI::GetNoOfSetsInReferenceLoad (const long nIndex)

Returns the number of reference load case - factor set(s) in specified reference load item.

Parameters

[in] **nIndex** The index for reference load item.

Return values

<Val> Reference load case reference ID.

-1 General error.

C++ Syntax

```
// Get the number ID of reference load case with index 2.
long nLoadNo = OSLoadUI::GetNoOfSetsInReferenceLoad(2);
```

VBA Syntax

```
' Get the number ID of reference load case with index 2.
Dim nLoadNo As long = OSLoadUI.GetNoOfSetsInReferenceLoad(2)
```

See also

OSLoadUI::GetReferenceLoadCaseCount

OSLoadUI::GetReferenceLoadCaseNumbers

OSLoadUI::CreateNewReferenceLoad

OSLoadUI::SetReferenceLoadActive

OSLoadUI::AddReferenceLoad

OSLoadUI::GetReferenceLoadCount

OSLoadUI::GetReferenceLoadByIndex

◆ GetNotionalLoadByIndex()

```
long OSLoadUI::GetNotionalLoadByIndex ( long    nIdex,
                                        VARIANT * iLoad,
                                        VARIANT * dFactor,
                                        VARIANT * iDirection )
```

Gets load case(s), direction(s) and factor(s) for specified Notional load.

Parameters

[in]	**nIndex**	The index for Notional load.
[out]	**iLoad**	Load case reference ID(s) in VARIANT array. +ve values = Primary Load Cases -ve values = Reference Load Cases
[out]	**dFactor**	Factor(s) in VARIANT array.
[out]	**dDirection**	Direction(s) in VARIANT array. 1 = X Direction 2 = Y Direction 3 = Z Direction

Return values

<Val> The size of **iLoad** or **dFactor** or **iDirection**.

-1 General error.

C++ Syntax

```
// Get the whole definition for Notional load #1.
long nEleNotionalLoad = OSLoadUI::GetNotionalLoadByIndex(1, &iLoad, &dFactor,
       &iDirection);
```

VBA Syntax

```
' Get the whole definition for Notional load #1.
Dim nEleNotionalLoad As long = OSLoadUI.GetNotionalLoadByIndex(1, &iLoad, &dFactor,
       &iDirection)
```

See also

OSLoadUI::AddNotionalLoad

OSLoadUI::GetNotionalLoadCount

OSLoadUI::GetNoLoadFactorDirectionInNotionalLoad

◆ GetNotionalLoadCount()

long OSLoadUI::GetNotionalLoadCount ( )

Returns the number of Notional load.

Return values

<Val> The number of Notional load.

-1 General error.

C++ Syntax

```
// Get the number of Notional load.
long nNotionalLoad = OSLoadUI::GetNotionalLoadCount();
```

VBA Syntax

```
' Get the number of Notional load.
Dim nNotionalLoad As long = OSLoadUI.GetNotionalLoadCount()
```

See also

OSLoadUI::AddNotionalLoad

OSLoadUI::GetNotionalLoadByIndex

OSLoadUI::GetNoLoadFactorDirectionInNotionalLoad

◆ GetReferenceLoadByIndex()

```
long OSLoadUI::GetReferenceLoadByIndex ( const long  nIdex,
                                         VARIANT * iLoad,
                                         VARIANT * dFactor )
```

Gets reference load item: reference load case reference number ID(s) and corresponding factor(s) for specified reference load item.

Parameters

[in]	**nIndex**	The reference load and factor set number.
[out]	**iLoad**	Load case(s) reference Id(s) in VARIANT array.
[out]	**dFactor**	Factor(s) in VARIANT array.

Return values

reference	load case reference number ID(s).
-1	General error.

C++ Syntax

```
// Get load case(s) and factor(s) in reference load with index of 2
long RetVal = OSLoadUI::GetReferenceLoadByIndex(2, &iLoad, &dFactor);
```

VBA Syntax

```
' Get load case(s) and factor(s) in reference load with index of 2
Dim RetVal As long = OSLoadUI.GetReferenceLoadByIndex(2, &iLoad, &dFactor)
```

See also

OSLoadUI::GetReferenceLoadCaseCount

OSLoadUI::GetReferenceLoadCaseNumbers

OSLoadUI::CreateNewReferenceLoad

OSLoadUI::SetReferenceLoadActive

OSLoadUI::AddReferenceLoad

OSLoadUI::GetReferenceLoadCount

OSLoadUI::GetNoOfSetsInReferenceLoad

◆ GetReferenceLoadCaseTitle()

VARIANT OSLoadUI::GetReferenceLoadCaseTitle (const VARIANT FAR & varLoadNo)

Gets reference load Type Name.

Parameters

[in] **varLoadNo** The Reference Load No(Type: Integer/Long).

Return values

Reference load Title.

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 rlType As Integer
        rlType = objOpenStaad.Load.GetReferenceLoadCaseTitle(1)
        MsgBox strTitle
        Set objOpenStaad = Nothing
    End Sub
```

See also

OSLoadUI::GetReferenceLoadCaseCount

OSLoadUI::GetReferenceLoadCaseNumbers

OSLoadUI::CreateNewReferenceLoad

OSLoadUI::SetReferenceLoadActive

OSLoadUI::AddReferenceLoad

OSLoadUI::GetReferenceLoadCount

OSLoadUI::GetNoOfSetsInReferenceLoad

OSLoadUI::GetReferenceLoadType

◆ GetReferenceLoadCount()

long OSLoadUI::GetReferenceLoadCount ( )

Returns the number of reference load case item(s) in current active load case.

Return values

<Val> The number of reference load case item(s).

-1 General error.

C++ Syntax

```
// Count the load case.
long nRefLoadCase = OSLoadUI::GetReferenceLoadCount();
```

VBA Syntax

```
' Count the load case.
Dim nRefLoadCase As long = OSLoadUI.GetReferenceLoadCount()
```

See also

OSLoadUI::GetReferenceLoadCaseCount

OSLoadUI::GetReferenceLoadCaseNumbers

OSLoadUI::CreateNewReferenceLoad

OSLoadUI::SetReferenceLoadActive

OSLoadUI::AddReferenceLoad

OSLoadUI::GetNoOfSetsInReferenceLoad

OSLoadUI::GetReferenceLoadByIndex

◆ GetReferenceLoadType()

VARIANT OSLoadUI::GetReferenceLoadType (const VARIANT FAR & varLoadNo)

Gets reference load Type.

Parameters

[in] **varLoadNo** The Reference Load No(Type: Integer/Long).

Return values

-1 General error.

Others (value can be 0 to 23) Reference load Type, please ref **OSLoadUI::CreateNewPrimaryLoad**.

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 rlType As Integer
        rlType = objOpenStaad.Load.GetReferenceLoadType(1)
        Set objOpenStaad = Nothing
    End Sub
```

See also

OSLoadUI::GetReferenceLoadCaseCount

OSLoadUI::GetReferenceLoadCaseNumbers

OSLoadUI::CreateNewReferenceLoad

OSLoadUI::SetReferenceLoadActive

OSLoadUI::AddReferenceLoad

OSLoadUI::GetReferenceLoadCount

OSLoadUI::GetNoOfSetsInReferenceLoad

OSLoadUI::GetReferenceLoadCaseTitle

◆ GetRepeatLoadByIndex()

```
long OSLoadUI::GetRepeatLoadByIndex ( const long  nIdex,
                                      VARIANT * iLoad,
                                      VARIANT * dFactor )
```

This function gets the list of load case IDs and load factors for a given repeat load command in the active load case in the provided two pre-sized, zero indexed arrays. The size of the arrays should be first determined using the function **OSLoadUI::GetNoLoadFactorInRepeatLoad()**.

Parameters

[in]	**Index**	The index for repeat load(One based).
[out]	**iLoad**	Load case reference ID(s) in Long array.
[out]	**dFactor**	Factor(s) in Double array.

Return values

<Val>	Number of load and factor pairs associated with a given repeat load command in the active load case. To set the active load case use: - VARIANT **OSLoadUI::SetLoadActive(const VARIANT FAR & varLoadNo)**. To get the active load case use:- VARIANT **OSLoadUI::GetActiveLoad()**.
-1	invalid repeat load index used.

C++ Syntax

```
// Get the whole definition for repeat load #1.
long nEleRepeatLoad = OSLoadUI::GetRepeatLoadByIndex(1, &iLoad, &dFactor);
```

VBA Syntax

```
 Option Explicit
Sub Main
     Dim objOpenStaad As Object
     Dim stdFile As String
     Dim i As Integer
     Dim j As Integer

     Set objOpenStaad = GetObject(,"StaadPro.OpenSTAAD")
     objOpenStaad.GetSTAADFile stdFile, "TRUE"

     Dim iLoad() As Long
    Dim dFactor() As Double
     Dim nRetVal  As Long

    objOpenStaad.Load.SetLoadActive 8
     Dim repeatLoadCount As Long
     Dim loadSize As Long

     repeatLoadCount = objOpenStaad.Load.GetRepeatLoadCount()

     For i = 1 To repeatLoadCount
         loadSize = objOpenStaad.Load.GetNoLoadFactorInRepeatLoad(i)
         ReDim iLoad(loadSize-1)
         ReDim dFactor(loadSize-1)
         nRetVal  = objOpenStaad.Load.GetRepeatLoadByIndex(i, iLoad, dFactor)
```

```
            For j = 0 To nRetVal -1
                MsgBox("Load : " &iLoad(j))
                MsgBox("Factor: " &dFactor(j))
            Next j
        Next i
    End Sub
```

See also

OSLoadUI::AddRepeatLoad

OSLoadUI::GetRepeatLoadCount

OSLoadUI::GetNoLoadFactorInRepeatLoad

◆ GetRepeatLoadCount()

long OSLoadUI::GetRepeatLoadCount ( )

This function returns the number of repeat load commands in the active load case.

Return values

<Val> The number of repeat load commands in the active load case.To set the active load case use: - VARIANT **OSLoadUI::SetLoadActive(const VARIANT FAR & varLoadNo)**. To get the active load case use:- VARIANT **OSLoadUI::GetActiveLoad()**

0 General error.

C++ Syntax

```
// Get the number of repeat load.
long nRepeatLoad = OSLoadUI::GetRepeatLoadCount();
```

VBA Syntax

```
Option Explicit
   Sub Main
        Dim objOpenStaad As Object
        Dim stdFile As String
        Set objOpenStaad = GetObject(,"StaadPro.OpenSTAAD")
        objOpenStaad.GetSTAADFile stdFile, "TRUE"

        Dim nRepeatLoad As Long
        Dim bRes As Boolean

        bRes = objOpenStaad.Load.SetLoadActive(8)
        If bRes = True Then
            nRepeatLoad = objOpenStaad.Load.GetRepeatLoadCount()
            MsgBox("Number of repeat load: " &nRepeatLoad)
        Else
            MsgBox("Not Able to Set Active Load Case")
        End If
    End Sub
```

See also

OSLoadUI::SetLoadActive

OSLoadUI::GetActiveLoad

OSLoadUI::GetRepeatLoadCount