# NDK_SCALE

*Last Modified on 04/21/2016 12:56 pm CDT*

- C/C++
- .Net

```
int __stdcall NDK_SCALE(double * X,
                        size_t   N,
                        double   K
                       )
```

Returns an array of cells for the scaled time series.

**Returns**

status code of the operation

**Return values**

**NDK_SUCCESS** Operation successful
**NDK_FAILED** Operation unsuccessful. See **Macros** for full list.

**Parameters**

`[in,out]` **X** is the univariate time series data (a one dimensional array).
`[in]` **N** is the number of observations in X.
`[in]` **K** is the scalar/multiplier value.

**Remarks**

1. The time series is homogeneous or equally spaced.
2. The scale operator is described as: \[ \left[z_t\right] =\left[x_t\right] \times \alpha \] Where:
   - \(\left[z_t\right]\) is the scaled time series.
   - \(\left[x_t\right]\) is the first time series.
   - \(\alpha\) is a constant value.
3. The returned array has the same size and time order as the first input time series.

**Requirements**

| | |
|---|---|
| **Header** | SFSDK.H |
| **Library** | SFSDK.LIB |
| **DLL** | SFSDK.DLL |

**Examples**

```
int NDK_SCALE(double[] data,
              UIntPtr  nSize,
              double   factor
             )
```

**Namespace:** NumXLAPI
**Class:** SFSDK
**Scope:** Public
**Lifetime:** Static

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`[in,out]` **data** is the univariate time series data (a one dimensional array).
`[in]` **nSize** is the number of observations in data.
`[in]` **factor** is the scalar/multiplier value.

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**Exceptions**

| Exception Type | Condition |
|---|---|
| None | N/A |

**Requirements**

| Namespace | NumXLAPI |
|---|---|

| | |
|---|---|
| **Class** | SFSDK |
| **Scope** | Public |
| **Lifetime** | Static |
| **Package** | NumXLAPI.DLL |

**Examples**

**References**


Hamilton, J .D.; Time Series Analysis , Princeton University Press (1994), ISBN 0-691-04289-6

Tsay, Ruey S.; Analysis of Financial Time Series John Wiley & SONS. (2005), ISBN 0-471-690740


## See Also

[template("related")]