NDK_ADD

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- C/C++
- .Net

```
int __stdcall NDK_ADD(double *       X,
                      size_t         N1,
                      const double * Y,
                      size_t         N2
                     )
```

Returns an array of cells for the sum of two 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]` **N1** is the number of observations in X.
`[in]` **Y** is the second univariate time series data (a one dimensional array).
`[in]` **N2** is the number of observations in Y.

Remarks

1. The time series is homogeneous or equally spaced.
2. The two time series have an identical number of observations and time order, or the second series contains a single value.
3. In the case where the two time series are identically sized, the two series are added together point-by-point: \[\left[z_t\right] = \left[x_t\right] + \left[y_t\right] \] Where:
   - \(\left[z_t\right]\) is the sum time series.
   - \(\left[x_t\right]\) is the first time series.
   - \(\left[y_t\right]\) is the second time series.
4. In the case where the second time series is passed as a single value (α), this constant is added to all points in the first time series: \[\left[z_t\right] =\left[x_t\right] + \left[\alpha\right] \] Where:
   - \(\left[z_t\right]\) is the sum time series.
   - \(\left[x_t\right]\) is the first time series.
   - \(\alpha\) is a constant value.
5. 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_ADD(double[] data1,
            UIntPtr  nSize1,
            double[] data2,
            UIntPtr  nSize2
           )
```

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

Returns an array of cells for the sum of two 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] **data1** is the univariate time series data (a one dimensional array).
[in] **nSize1** is the number of observations in data1.
[in] **data2** is the second univariate time series data (a one dimensional array).
[in] **nSize2** is the number of observations in data2.

Remarks

1. The time series is homogeneous or equally spaced.
2. The two time series have an identical number of observations and time order, or the second series contains a single value.
3. In the case where the two time series are identically sized, the two series are added together point-by-point: \[\left[z_t\right] = \left[x_t\right] + \left[y_t\right] \] Where:

- \(\left[z_t\right]\) is the sum time series.
- \(\left[x_t\right]\) is the first time series.
- \(\left[y_t\right]\) is the second time series.

4. In the case where the second time series is passed as a single value (α), this constant is added to all points in the first time series: \[\left[z_t\right] =\left[x_t\right] + \left[\alpha\right] \] Where:
   - \(\left[z_t\right]\) is the sum time series.
   - \(\left[x_t\right]\) is the first time series.
   - \(\alpha\) is a constant value.
5. The returned array has the same size and time order as the first input time series.

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")]