

# NDK\_RMSE

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- C/C++
- .Net

```
int __stdcall NDK_RMSE(double * X,  
                      double * Y,  
                      size_t  N,  
                      WORD   retType,  
                      double * retVal  
                      )
```

Calculates the root mean squared error (aka root mean squared deviation (RMSD)) function.

## Returns

status code of the operation

## Return values

**NDK\_SUCCESS** Operation successful

**NDK\_FAILED** Operation unsuccessful. See [Macros](#) for full list.

## Parameters

[in] **X** is the original (eventual outcomes) time series sample data (a one dimensional array).

[in] **Y** is the forecast time series data (a one dimensional array).

[in] **N** is the number of observations in X.

[in] **retType** is a switch to select the return output (1=RMSE (default), 2=NRMSE, 3=CV(RMSE)).

[out] **retVal** is the calculated value of this function.

## Remarks

1. The RMSE is also known as root mean squared deviation (RMSD).
2. Please see NDK\_RMSE for definition and notes.

## Requirements

<b>Header</b>	SFSDK.H
<b>Library</b>	SFSDK.LIB
<b>DLL</b>	SFSDK.DLL

## Examples

```
int NDK_RMSE(double[] pData1,  
             double[] pData2,  
             UIntPtr nSize,  
             short retType,  
             ref double retVal  
            )
```

<b>Namespace:</b> NumXLAPI
<b>Class:</b> SFSDK
<b>Scope:</b> Public
<b>Lifetime:</b> Static

Calculates the root mean squared error (aka root mean squared deviation (RMSD)) function.

### Return Value

a value from [NDK\\_RETCODE](#) enumeration for the status of the call.

**NDK\_SUCCESS** operation successful  
Error                      Error Code

### Parameters

- [in] **pData1** is the original (eventual outcomes) time series sample data (a one dimensional array).
- [in] **pData2** is the forecast time series data (a one dimensional array).
- [in] **nSize** is the number of observations in X.
- [in] **retType** is a switch to select the return output (1=RMSE (default), 2=NRMSE, 3=CV(RMSE)).
- [out] **retVal** is the calculated value of this function.

### Remarks

1. The RMSE is also known as root mean squared deviation (RMSD).
2. Please see [NDK\\_RMSD](#) for definition and notes.

### Exceptions

Exception Type	Condition
None	N/A

### Requirements

<b>Namespace</b>	NumXLAPI
<b>Class</b>	SFSDK
<b>Scope</b>	Public
<b>Lifetime</b>	Static
<b>Package</b>	NumXLAPI.DLL

### Examples

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### References

Hull, John C.; [Options, Futures and Other Derivatives](#) Financial Times/ Prentice Hall (2011), ISBN 978-0132777421

### See Also

[[template\("related"\)](#)]

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