



## **Derivatives Service Bureau**

### **Term of Contract Calculator Use Cases**

Version 1

July 2019

## Preface

### Change History

Date	Type	Version	Author	Revision Details
11 Jul 2019	Creation	1	Luis de Jesus	Initial Version

## TERM OF CONTRACT CALCULATOR USE CASES

#	Description	Inputs				Outputs		
		StartDate	EndDate	EndDate Adjusted	Calculation Method	Term Of Contract Value	Term Of Contract Unit	Calculation Basis
1	Whole week calculation	2019-02-28	2024-05-12	N	ESMA	271	WEEK	Whole Weeks
2	Whole Years calculation	2018-10-10	2028-10-10	N	ESMA	10	YEAR	Whole Years
3	Whole Months calculation	2018-10-10	2028-11-20	N	ESMA	121	MNTH	Whole Months
4	Whole Days calculation	2019-06-21	2019-06-23	N	ESMA	2	DAYS	Whole Days
5	Overflow Weeks calculation	2019-06-24	2022-12-27	N	ESMA	183	WEEKS	Overflow Weeks
6	Overflow Months calculation	2018-10-10	2039-11-20	N	ESMA	253	MNTH	Overflow Months
7	Overflow Months calculation	2018-10-10	2039-11-30	N	ESMA	254	MNTH	Overflow Months
8	Overflow Months calculation	2018-10-10	2039-11-05	N	ESMA	253	MNTH	Overflow Months
9	Overflow Years calculation	2019-06-27	2219-10-07	N	ESMA	200	YEAR	Overflow Years
10	Leap Year calculation	2011-10-30	2092-03-15	N	ESMA	964	MNTH	Leap Year
11	Leap Year calculation	2011-10-29	2092-03-15	N	ESMA	965	MNTH	Leap Year
12	Leap Year calculation	2011-10-28	2092-03-15	N	ESMA	965	MNTH	Leap Year
13	Not Leap Year calculation	2011-10-29	2093-03-15	N	ESMA	976	MNTH	Not Leap Year
14	Not Leap Year calculation	2011-10-28	2093-03-15	N	ESMA	977	MNTH	Not Leap Year
15	Not Leap Year calculation	2011-10-27	2093-03-15	N	ESMA	977	MNTH	Not Leap Year

#	Description	Inputs				Outputs		
		StartDate	EndDate	EndDate Adjusted	Calculation Method	Term Of Contract Value	Term Of Contract Unit	Calculation Basis
16	Not Leap Year calculation	2020-02-15	2100-03-01	N	ESMA	960	MNTH	Not Leap Year
17	Not Leap Year calculation	2020-02-14	2100-03-01	N	ESMA	961	MNTH	Not Leap Year
18	Not Leap Year calculation	2020-02-13	2100-03-01	N	ESMA	961	MNTH	Not Leap Year
19	Leap Year calculation	2321-02-16	2400-03-01	N	ESMA	948	MNTH	Leap Year
20	Leap Year calculation	2321-02-15	2400-03-01	N	ESMA	949	MNTH	Leap Year
21	Leap Year calculation	2321-02-14	2400-03-01	N	ESMA	949	MNTH	Leap Year
22	Overflow Years calculation	2010-12-17	3010-01-14	N	ESMA	999	YEAR	Overflow Years
23	Edge Case for DAYS calculation	2019-07-11	2022-04-05	N	ESMA	999	DAYS	Whole Days
24	Edge Case for WEEKS calculation	2019-07-11	2038-09-02	N	ESMA	999	WEEK	Whole Weeks
25	Edge Case for MNTH calculation	2019-07-11	2102-10-11	N	ESMA	999	MNTH	Whole Months
26	Invalid input	3000-01-01	4000-01-01	N	ESMA	Error message: Invalid Input: Input Dates exceed maximum input range of 999 Years.		
27	Invalid input	2039-11-30	275760-01-15	N	ESMA	Error message: Given date:"275760-01-15" is not a valid Date of format YYYY-MM-DD.		
28	Invalid input	275760-01-15	2039-11-30	N	ESMA	Error message: Given date:"275760-01-15" is not a valid Date of format YYYY-MM-DD.		
29	Invalid input	9999-12-31	9999-12-31	N	ESMA	Error message: Invalid Input: The Expiry Date must be greater than Effective Date.		

#	Description	Inputs				Outputs		
		StartDate	EndDate	EndDate Adjusted	Calculation Method	Term Of Contract Value	Term Of Contract Unit	Calculation Basis
30	Invalid input	2039-11-30	2018-10-10	N	ESMA	Error message: Invalid Input: The Expiry Date must be greater than Effective Date.		
31	Adjusted Expiry Date = Y	2019-07-11	2019-07-12	Y	ESMA	Error message: Given "Adjusted Expiry Date" is not yet supported.		
32	Invalid Calculation Method	2019-07-11	2019-07-12	N	ISDA	Error message: Given "Calculation Method" is not yet supported.		
33	Blank Effective Date	<no input>	2019-07-12	N	ESMA	Error message: Please select an Effective Date.		
34	Blank Expiry Date	2019-07-11	<no input>	N	ESMA	Error message: Please select an Expiry Date		
35	Reset Button	2019-07-11	2019-07-12	N	ESMA	Fields are cleared and are set to default values after hitting the Reset button		