SubTimesLocal

%SubTimesLocal function

Function

The function deducts absolute time **TimeB** from absolute time **TimeA**. A result is value of *Relative time* type.

Declaration

```
REAL %SubTimesLocal(
   TIME in TimeA,
   TIME in TimeB,
   TEXT in timeZone := %GetCurrentTimeZone()
 )
```

Parameters

TimeA	Absolute time.
TimeB	Absolute time.
timeZone	Name of the time zone used for conversion to local time (e.g. "Europe/London") or definition of fixed offset from UTC using format "*(+|-)hh[:mi[:ss]]*", where *hh* defines number of hours, *mi* defines number of minutes, and *ss* defines number of seconds. Sign as well as number of hours are mandatory parts of offset definition, number of minutes and seconds are optional and default to 0 (e.g. "+02:30" defines offset of 2 hours and 30 minutes from UTC). Empty text has the same meaning as function %GetCurrentTimeZone. Note: For historical reasons, integer parameter is also accepted. Its interpretation is as follows: 0 - zone "Europe/London", 3600 - zone "Europe/Bratislava", 7200 - zone "Europe/Kiev", 21600 - zone "Asia/Almaty". Usage of integer parameter is deprecated and generates warning into log file!

Description

The function %SubTimesLocal deducts one absolute time from other one. The result **will not be** influenced by the fact if the time offset was or was not in this interval. For example, the difference between 4:00 and 1:00 a.m. is always three hours.

Example

```
; ================================================================
;  Using time zone "Europe/Bratislava"
;  Daylight saving time was observed in year 2009, therefore time shifts
occured.
;  Winter [B] time was 1 hour ahead of UTC, summer [A] time was 2 hours
ahead of UTC.
;  Summer time was from 29th March 2009 to 24th October 2009.
;  A3:00:00 is changed to B2:00:00 on Sunday (25th October 2009).
; ================================================================

BEGIN
  TIME _timeA
  TIME _timeB
  TIME _baseTime

  REAL _subLocal1
  REAL _subLocal2

  ; 2009-10-25 00:30:00 UTC
  _timeA := %StrToTimeEx("2009-10-25 A2:30:00", "yyyy-mm-dd hh:mi:ss",
"Europe/Bratislava")
  ; 2009-10-25 01:30:00 UTC
  _timeB := %StrToTimeEx("2009-10-25 B2:30:00", "yyyy-mm-dd hh:mi:ss",
"Europe/Bratislava")
  ; 2009-10-24 23:30:00 UTC
  _baseTime := %StrToTimeEx("2009-10-25 01:30:00", "yyyy-mm-dd hh:mi:ss",
"Europe/Bratislava")

  ; difference 1 hour(s) (3600 seconds)
  _subLocal1 := %SubTimesLocal(_timeA, _baseTime, "Europe/Bratislava")
  ; difference 1 hour(s) (3600 seconds)
  _subLocal2 := %SubTimesLocal(_timeB, _baseTime, "Europe/Bratislava")

 END
```

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