



Schedule vs Operation

- This model caters for both:
 - hours of operation, which is an Instant & Interval
 - task or other schedule, which is an Instant only (Interval is task duration, and optional)
- A Schedule can be fully configured. Thus the concept is, the referencing table (either Operation or Task Schedule) will use just one Schedule, not more. However, it is not restricted to one Schedule.
- The Function must check for valid range within the context of the table.

Escalation

- Applies to Daily & Weekly only
- Escalations are for operations (*_Operation only), it does not apply to Tasks (*_Schedule)
- Allows more than one Escalation Interval per Schedule.

Suppression

- Applies to *_Operation only (and by that route, to Tasks), it does not apply to Tasks (via Schedule)
- The frequency of the Schedule, and the frequency of a Suppression, are independent. Eg. a Daily Schedule may be Suppressed Annually.

"Temporal" Data

- Although the Schedule is not "temporal" in the usual sense, because it is a generic Definition, and used by unnumbered referencing tables, it is "temporal".
- Rather than extending the "temporal" Functions for this generic use, which would add complexity, a separate set of Functions are recommended.
- There are two units for handling all "temporal" data, in a generic standardised manner, along with two Functions (Get, Put), and a Function for validation (used as a CHECK Constraint).

Datum	Data Type	Range
Instant	[SMALL]DATETIME	[SMALL]DATETIME
Interval	[SMALL]DATETIME	Stored as Offset from 1 Jan 1970 00:00

- Interval** (Duration, Period) is often perceived as a StartDtm to EndDtm, but that is grossly incorrect (Date & Darwin are freaks), and very limiting. Perceive it for what it is: the result, the view, and not the storage.
- Interval is stored as two units:
 - an Instant, the startDtm, an ordinary [SMALL]DATETIME. This may be available in another form (Eg. Month, Day, DayOfWeek, etc).
 - an Interval, an elapsed amount of time, stored as an offset from the start of the [SMALL]DATETIME range.

- C** Schedule_IsValid_ck:
 - Check Instant is valid for Subtype
 - Check Start is valid Time/Day
 - Check Interval End is valid per <table>
 - Check Start >= parent Start
 - Check Interval End <= parent Interval End
 - Check that Suppression intersects Operation

Range

- 0 ≤ Minute ≤ 59
- Minute % 5
- 0 ≤ Hour ≤ 23
- 1 ≤ Day ≤ 27
- 1 ≤ DayOfWeek ≤ 7
- 1 ≤ Month ≤ 12
- 1 ≤ MonthOfQuarter ≤ 3

