📘 Meeting Analytics Formula Reference

Summary

This document outlines key calculated fields and formulas used in Excel and Tableau to analyze meeting calendar data. The primary goal is to provide insights into productivity, fatigue, and focused work opportunities by interpreting calendar metadata such as meeting times, gaps, duration, and recurrence.

📊 Excel Columns & Formulas

Back-to-Back Flag

Formula:
=IF(ROW()=2, 0, IF(C2=E1, 1, 0))

Explanation:

Flags if a meeting is immediately followed by another without any gap. Helps identify continuous meeting blocks.

Next Meeting Start Time

Formula:
=IF(B2<>B3, "00:00:00", TEXT(C3, "hh:mm AM/PM"))

Explanation:

Extracts the start time of the next meeting only if it's on the same day. Returns a placeholder otherwise.

Gap Between Next Meeting

Formula:
=IF(E2 > TIME(18,0,0), -2, IF(B2 = B3, IF((C3 - E2) * 1440 < 0, -1, ROUND((C3 - E2) * 1440, 0)), IF((TIME(18,0,0) - E2) * 1440 < 0, -2, ROUND((TIME(18,0,0) - E2) * 1440, 0))))

Explanation:

Computes the time gap in minutes to the next meeting considering end-of-day limits and edge cases.

📈 Tableau Calculated Fields

The following are custom calculated fields used in Tableau to support visual meeting analytics.

DND End

Formula:
[Next Meeting Start Time]

Explanation:

Marks the end of a DND window.

DND Start

Formula:
[End Time Fixed]

Explanation:

DND starts at the end of the last meeting.

DND Label

Formula:
IF [Gap between next meeting] >= 120 THEN "DND" ELSE "Normal"
END

Explanation:

Labels time blocks as DND if the gap is 2 hours or more.

DND Slot Flat

Formula:
IF [Gap between next meeting] >= 120 THEN 1 ELSE 0 END

Explanation:

Binary indicator for time blocks qualifying as DND.

DND Duration

Formula:
IF [DND Label] = "DND" THEN ((DATEPART('hour', [DND End]) * 60 +
DATEPART('minute', [Next Meeting Start Time])) - (DATEPART('hour',

*[DND Start]) * 60 + DATEPART('minute', [End Time])) + 1440) % 1440 ELSE 0 END*

Explanation:

Calculates the duration (in minutes) between the end of a meeting and the next meeting when DND applies.

First Meeting Time

Formula:
{ FIXED [Start Date] : MIN([Start Time]) }

Explanation:

Returns the earliest meeting start time on a given date.

Last Meeting Time

Formula:
{ FIXED [Start Date] : MAX([End Time]) }

Explanation:

Returns the latest meeting end time on a given date.

Start Time Fixed

Formula:
DATETIME(DATE([Start Date]) + ([Start Time] - DATETIME(DATE([Start Time]))))

Explanation:

Converts Start Time into a fixed datetime value preserving the time.

End Time Fixed

Formula:
DATETIME(DATE([End Date]) + ([End Time] - DATETIME(DATE([End Time]))))

Explanation:

Converts End Time into a fixed datetime value preserving the time.

Recurring Meeting

Formula:
IF { FIXED [Subject], [Start Time] : COUNTD([Start Date]) } >= 3 THEN "Recurring" ELSE "Non-Recurring" END

Explanation:

Identifies recurring meetings based on repetition of subject and time on 3 or more dates.

Back-to-Back Score

Formula:
[Back-to-Back Flag]*10

Explanation:

Assigns a penalty score for back-to-back meetings to reflect potential fatigue.

Duration

Formula:
DATEDIFF('minute', [Start Time], [End Time])

Explanation:

Calculates the duration of each meeting in minutes.

Duration Score

Formula:
MIN(10, [Daily Duration] / 540 * 10)

Explanation:

Normalizes meeting load into a score from 0 to 10 based on a 9-hour day.

Daily Duration

Formula:
ROUND({ FIXED [Start Date] : SUM([Duration]) } / 60, 1)

Explanation:

Total duration of all meetings per day in hours.

% of Workday Used

Formula:
*ROUND({ FIXED [Start Date] : SUM([Duration]) } / 540 * 100, 1)*

Explanation:

Represents the percentage of a standard workday occupied by meetings.

Daily Meeting Count

Formula:
{ FIXED [Start Date] : COUNT([Start Time]) }

Explanation:

Counts the number of meetings scheduled for each day.

Daily Fatigue Score

Formula:
[Duration Score] + [Late Hour Meeting] + [Back-to-Back Flag]

Explanation:

Aggregate fatigue score based on duration, late meetings, and consecutive scheduling.

Daily Fatigue Indicator

Formula:
IF [Daily Fatigue Score] <= 10 THEN "🔴 High"
ELSEIF [Daily Fatigue Score] <= 20 THEN "🟠 Medium"
ELSE "🟢 Low"
END

Explanation:

Categorizes the overall fatigue for the day using traffic-light emojis.

Daily Focus Duration

Formula:
MAX(0, 540 - [Daily Duration])

Explanation:

Calculates remaining time for focused work out of a 9-hour workday.

Late Hour Meeting Label

Formula:
IF NOT ISNULL([Start Time Fixed]) AND NOT ISNULL([End Time Fixed]) AND
(DATEPART('hour', [Start Time Fixed]) >= 18) THEN "✅ Yes" ELSE "❎ No" END

Explanation:

Labels meetings starting after 6 PM.

Late Hour Meeting

Formula:
IF DATEPART('hour', [Start Time Fixed]) >= 18 OR DATEPART('hour', [End Time Fixed]) >= 18 THEN 10 ELSE 0

Explanation:

Adds a score to indicate after-hours meetings.

Non-Productive Time Indicator

Formula:
IF [Duration] < 30 THEN 1 ELSE 0 END

Explanation:

Flags meetings under 30 minutes as potentially non-productive.

Working Hour Meeting Flag

Formula:
IF DATEPART('hour', [Start Time]) >= 9 AND DATEPART('hour', [End Time]) <= 18 THEN 1 ELSE 0 END

Explanation:

Flags meetings that fall entirely within standard working hours (9 AM to 6 PM).