TOP 08 REASONS TO USE A CALENDAR TABLE

WHAT IS A CALENDER TABLE?

A calendar table, or date table, is a special dimension table in your data model. Each row in this table represents a date. Dates are stored in a date column. Date ranges always span complete calendar years. Years can be from the past or future years (e.g. for planning purposes). There can be any number of additional columns added to the calendar table each containing date-related information such as the year half-year, quarter or calendar week. Power BIs Auto date/time feature automatically creates calendar tables. But there are several good reasons to use a self-created table instead.

WHERE TO GET A CALENDER TABLE?

There are a lot of sources from which you can get your custom calendar table. You can import it from a database using a SQL view. Often the organizations data warehouse provides such a table. So somebody might already have created one for you and you only have to make use of it. If there is no database at hand you can even create it yourself using Excel and import it to Power BI. However, you also have the option to create your calendar table in Power BI itself, either by using M in Power Query or by writing DAX code in the data model.

1 TIME ANALYSIS

Time is the only dimension each and every company shares. Therefore, enabling time-based business analysis is extremly important in itself. Custom calendar tables address this relevance

2 DRILLING ACCROSS

Analysis and comparison of different business transactions along the same conformed date dimension is one of the most powerful features of BI. Only a dedicated calendar table enables this

3 TIME INTELLIGENCE

Only if you have a dedicated calendar table in your data model, you can take advantage of all the time-intellligence functions of DAX to easily implement time based analysis patterns

4 DESIRED PERIODS

The columns of the calendar table can contain all the date-related information you require, for example, to enable analysis by calendar week, which is not included in Auto date/time feature

5 CUSTOM CALENDARS

Their customizable nature supports creating special calendars (e.g. 4-4-5 calendars) in order to smooth seasonal data peaks or to enable analysis of fiscal years that differ from calendar years

6 SPECIAL ABSENCES

Self-created calendar tables enable consideration of certain events such as regional bank holidays or special rules of regional law like e.g. contractual obligations due to labour law etc.

7 CUSTOM HIERARCHIES

Custom calendar tables allow you to build any custom hierarchy you like, in order to provide users with a ready-made path for data exploration in your reports

8 FLEXIBLE RANGE

While date range of Auto date/time feature automatically is derived from the date columns in your data model, calendar tables enable fexible date ranges according to your analytical needs

EXAMPLES USING DAX OR M

sqlbi.com ● DAX Date Template (DAX)
Skillwave ● Dynamic Calendar Table (M)
PowerBI.tips ● Creating a DAX Calendar

MARKING AS „DATE TABLE“

You want to use an Integer date key instead of a date to relate your calendar table to your other tables? Mark it as „date table“ (How and Why)

DISABLE AUTO DATE/TIME

To prevent Power BI from creating calendar tables for each date column in the model automatically, disable Auto date/time feature (How and Why)

FURTHER READINGS

Radacad ● Creating Calendar Table in Power BI
Microsoft ● Create date tables in Power BI
Excel Campus ● The Calendar Table explained

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