

**Milan
Power BI
User
Group**

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Aggregations

Riccardo Perico



Milan Power BI User Group

Nice to meet you

Riccardo Perico

[SolidQ](#)

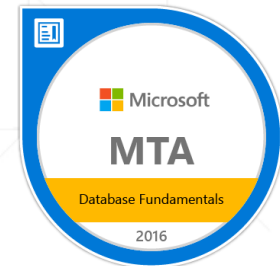
BI & Data Platform Specialist

10 years working with Data in Microsoft Environments

MCP: MTA, MCSA

<https://www.linkedin.com/in/riccardo-perico-8b942384/>

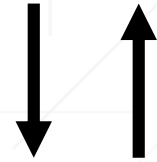
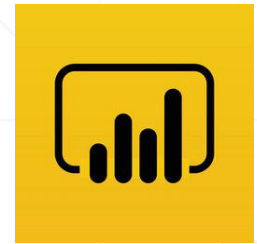
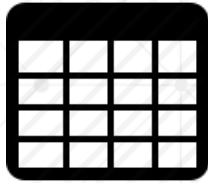
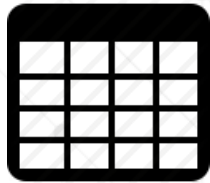
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Agenda

- What are aggregations?
- Why should I care of them?
- How to use them?
- How not to use them?
- ...

Storage Mode: Import Mode



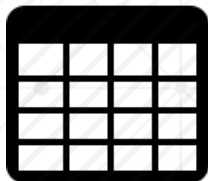
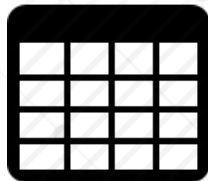
Data Model Cached into RAM

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Storage Mode: Import Mode

- Model Cached inside PowerBI Service
- High Compression
- VertiPaq Engine behind the scenes
- Full PowerBI functionalities support
- Multiple Data Sources mashup (all available)
- 10 GB model size for PREMIUM / 1 GB for PRO

Storage Mode: Direct Query



Schema only

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Storage Mode: Direct Query

- Limited data sources
 - Not full PowerQuery and DAX support
 - Pay attention to performance (1 render = 1 query)
-
- Overcome model size limits
 - Real-time / Near Real-time scenarios



Aggregations help you!

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Demo

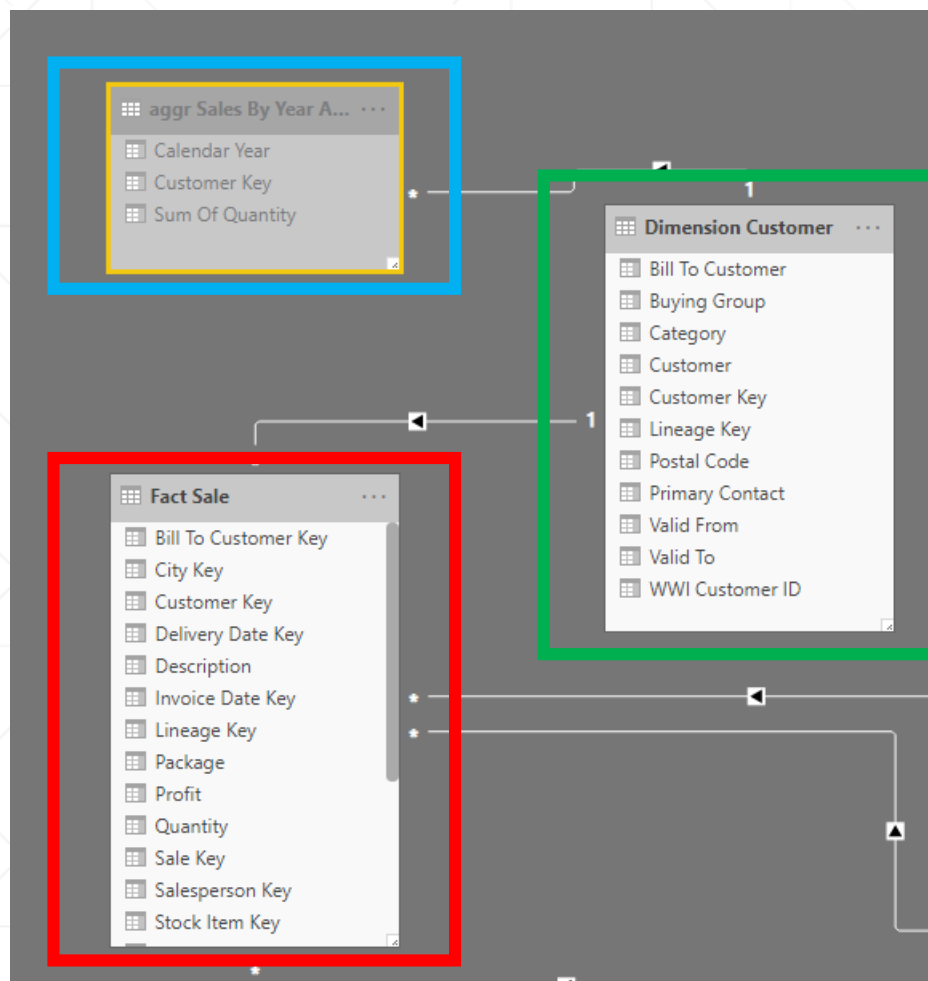
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A New Mode: Dual (or Composite)

Import Mode

Direct Query

Dual Mode



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Aggregation Layers

- Multiple Aggregations over the same table are named «Layers»
- Drive layer selection with priority property (higher wins)

Manage aggregations

Aggregations accelerate query performance to unlock big-data sets. [Learn more](#)

Aggregation table

aggr Sales By Year And Customer ▼

Precedence ⓘ

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Take Into Consideration

- Aggregations aren't hit if a weak relationship exists
- Aggregations aren't hit if calculation is performed row by row (SUMX)
- Engine doesn't manage inconsistency between direct and import mode
- Import over Import not supported



Demo

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Useful Links

- Chris Wade «clicky clicky draggy droppy» on trillion rows: <http://tiny.cc/s01w5y>
- Reza Rad «step by step» aggregations: <http://tiny.cc/v71w5y>



Q&A

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Thank
you!