Writeback

Here Comes the Sun

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Who Are We

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Agenda

▶ What is Writeback

▶ Writeback Scenarios

▶ Writeback in Excel 2010

▶ Enable Writeback to a SSAS Cube

▶ Improve Writeback Performance

▶ Security

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What is writeback

‣ Writeback is the user's way to publish data back to a cube

‣ Other frontend applications/Excel add-ins have supported writeback since Analysis Services 2000

‣ With Excel 2010 Microsoft Office finally natively supports writeback to cubes

‣ Writeback is implemented through what-if functionality in PivotTables
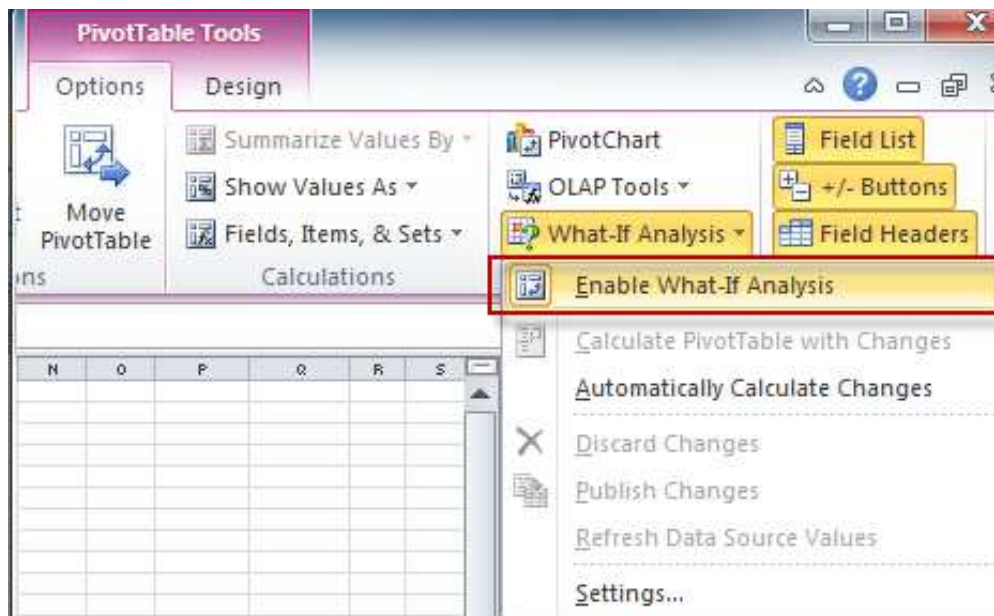
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Writeback Scenarios

▸ Cost budgeting

▸ Sales forecasting

▸ Entering values for KPI's that do not originate from other IT systems (HR data etc.)

▸ Entering targets for KPI's

▸ Adjustments to financial reporting that needs to adjust cube values immediately

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Demonstration of writeback in Excel

▸ Setting up the PivotTable for writeback

▸ Using sets

▸ Automatically calculate changes

▸ Allocations

▸ Using Excel formulas to manipulate writeback values

▸ Publish changes to the cube
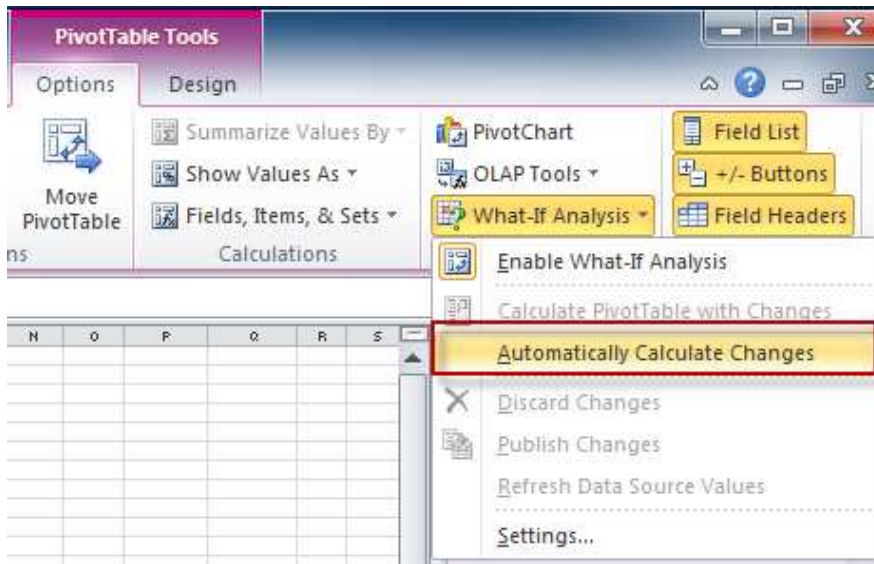
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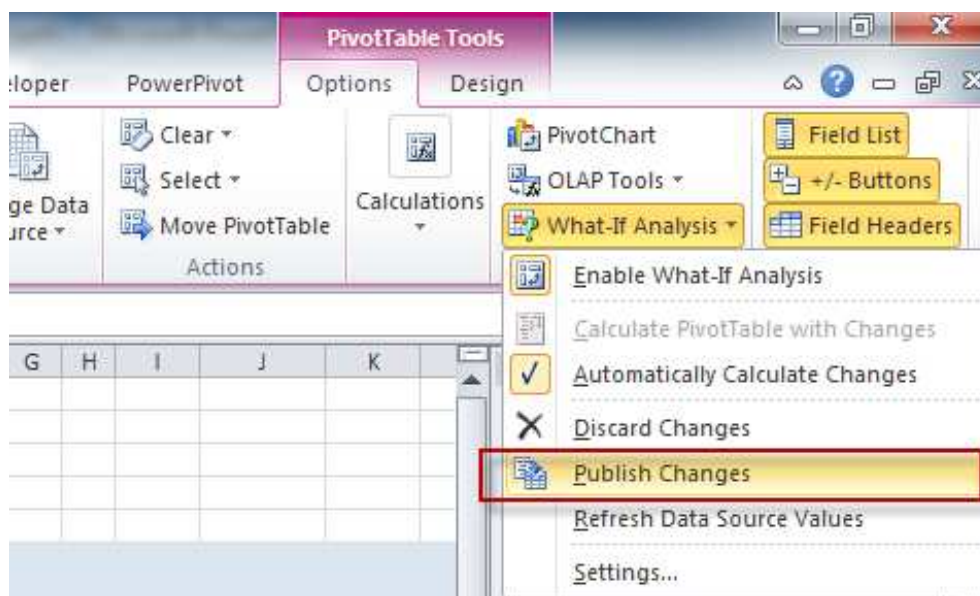
Enabling the PivotTable for writeback

Data entry

Calculate changes based on cube logic

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Publish changes

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Writeback – How Does it Work in SSAS

▸ Writeback data is put into a separate cube partition, which is updated in real time

▸ Writeback will put data directly into a table in the cube data source

▸ Records in the Writeback table will be "delta records"

▸ When data is updatede using Writeback, it is a part of the cube, just like any other cube data

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How to Enable Writeback in SSAS

‣ Can be enabled from both SSMS and BIDS
‣ Writeback table will be created during writeback partition process if it doesn't exit

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Limitations

▸ All measures in measure group must have SUM as aggregation function

▸ Move measures with different aggregation function to separate measure group

▸ Beware - Writeback is on leaf-level

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ROLAP vs MOLAP

▸ Writeback partition with MOLAP storage (since SSAS 2008)

▸ Like ROLAP, MOLAP writeback will store updates in a writeback table

▸ MOLAP Benefits

  ◦ Querying and updating is faster with MOLAP writeback

  ◦ No ExecuteSQL event is required to query writeback partition

  ◦ Aggregations can be assigned to the writeback partition – they will be updated in real time

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Improve Writeback Performance

▸ Remember - Writeback is on leaf-level

▸ Keep the cube space to a minimum

▸ Avoid big dimensions

▸ Create new measure group containing

  ◦ Only writeback measure

  ◦ Only dimension relation to needed dimensions

  ◦ Put dimension relation to higest possible granularity level of the dimension

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Partitioning

‣ Good partitioning will improve Writeback performance on large data sets

‣ The number of records in the Writeback partition will have an impact on both query performance and Writeback performance

‣ Use ETL Jobs to frequently move data from the Writeback partition into regular partitions

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Security

‣ Read/Write access to the cube is needed in the cube role

‣ Analysis Services needs write-access to the cube data source

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Conclusion

‣ With Excel 2010 Writeback is now possible without the need for 3rd party software or coding

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Links

- Blog post on how to enable Writeback
  - http://sstoltze.wordpress.com/2011/05/04/enabling-writeback-to-ssas-in-excel-2010/
- Vidas Matelis list of Writeback articles/blogs
  - http://ssas-wiki.com/w/Articles#Write_Back

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Thank You

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