

MindGrove Checklists
More about ODBC and OLAP

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Note: The MindGrove website has additional useful working and training materials on its resource pages.

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ODBC and OLAP

What's OLAP?

- OLAP stands for “On-Line Analytical Processing” and is a database technology optimised for querying and reporting.

What's an OLAP Provider?

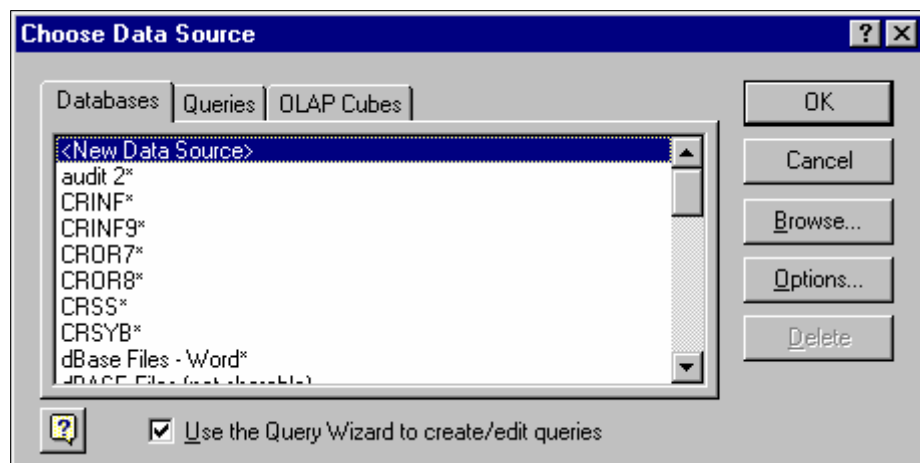
- Software that provides access to a particular type of OLAP database. This software can include data source drivers and other client software that is necessary to connect to a database.
- *To understand more about data source drivers and clients – go to <http://www.mindgrove.co.uk/tools.htm> and download the set of notes entitled: “Open Database Connectivity - Understanding ODBC and how to configure ODBC for simple query work”.*
- To install or use a third-party OLAP provider, see your system administrator or vendor of an OLAP product.
- After you install the provider, you can set up data sources in Microsoft Query to access the provider's databases.
- To use Microsoft Office with OLAP data, the third-party product must be Microsoft Office-compatible.

What's an OLAP Cube?

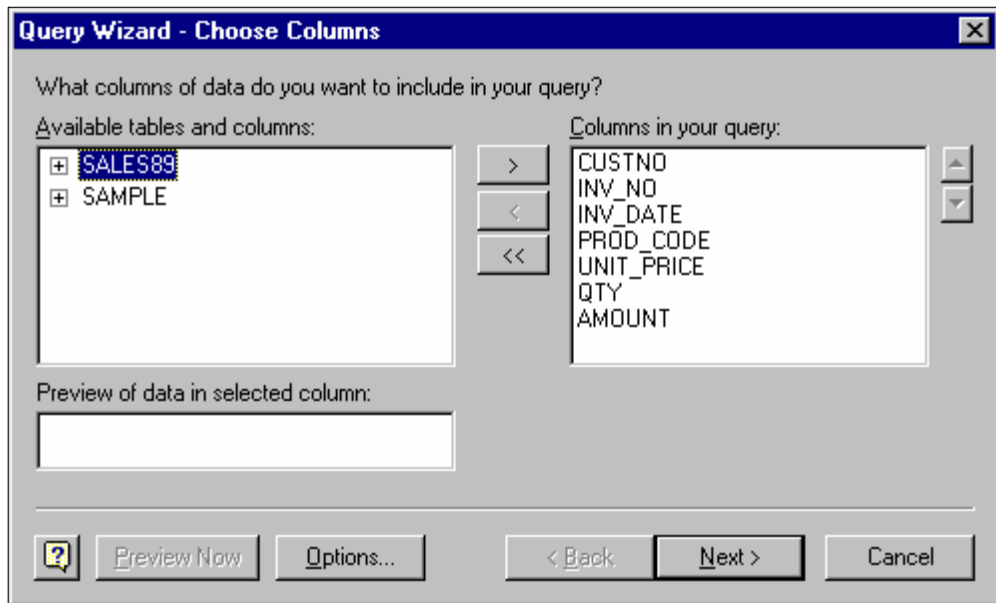
- OLAP data is organized hierarchically and stored in “cubes” instead of tables. OLAP providers – servers – create OLAP Cubes.
- A file created on your hard disk / network share to store OLAP source data for a PivotTable or PivotChart report is called an “Offline Cube”.

How do I create an OLAP Cube?

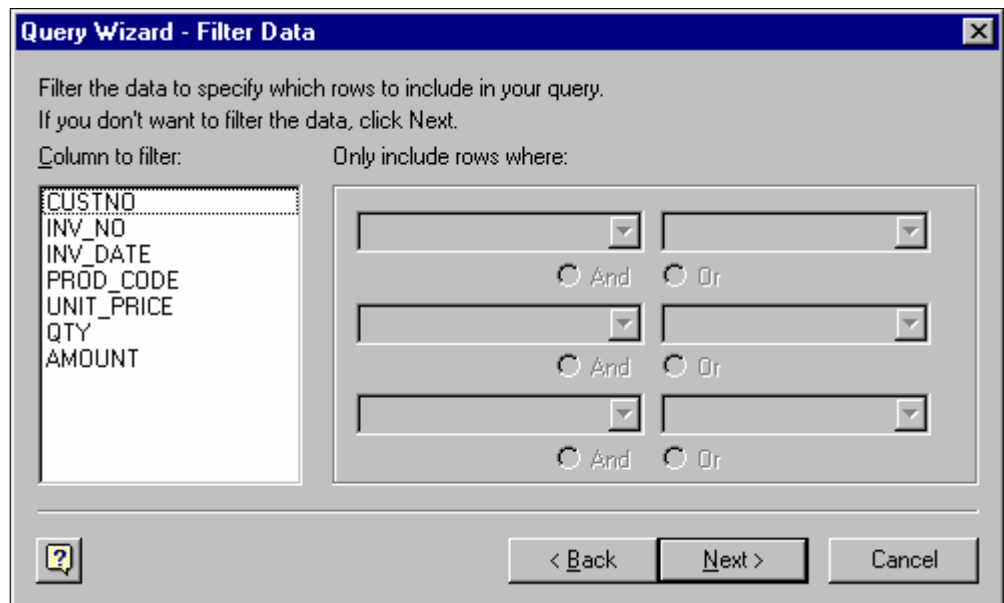
- In Microsoft Excel (MS Office 2000 or later) choose Data → External Data → New Database Query – this will prompt you to choose a data source.
- Having chosen a data source **and ticked** “Use the Query Wizard to create/edit queries” ... the query wizard loads.



- Now you work your way through the query wizard ...
- Choosing the columns in your query...



- Filtering the data by criteria.
- If no filters are required because you require to extract and build a cube from the whole population then move on to the next choice...

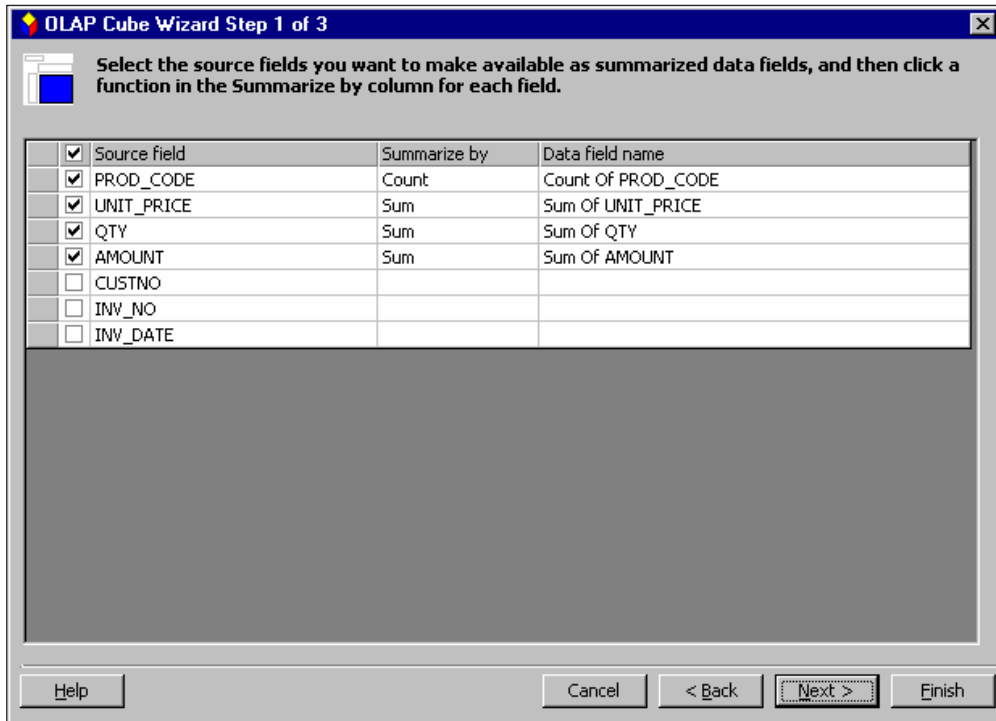


.. and keep moving forward until you reach the finish page.

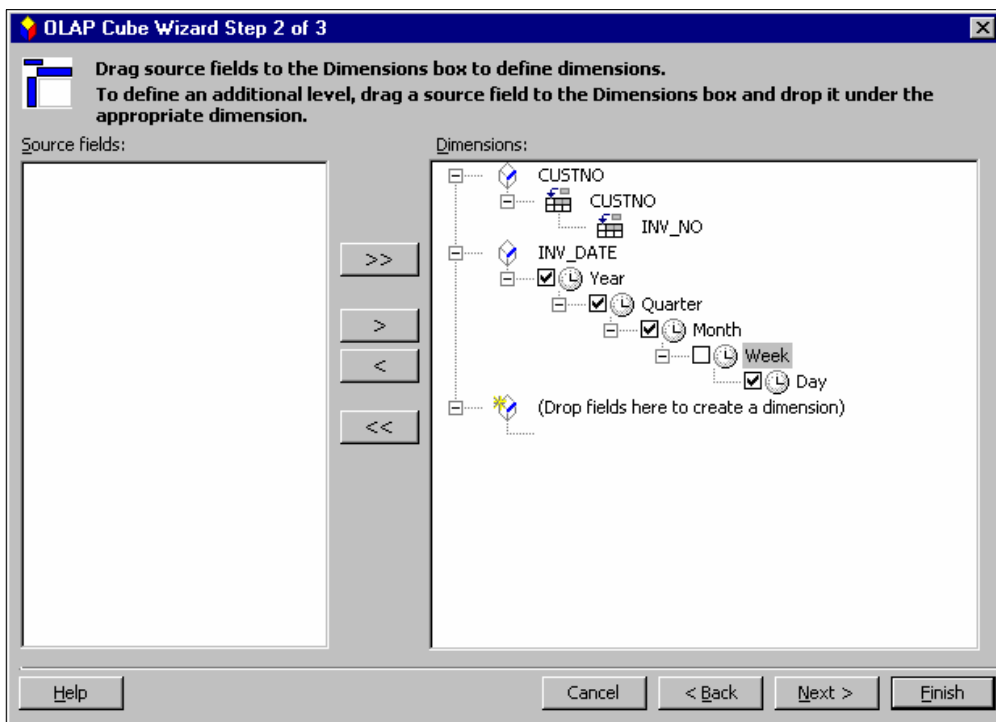
- Here you choose the **create an OLAP query** option and this will in turn launch the OLAP Cube Wizard..

The OLAP Cube Wizard and the Pivot Table Wizard

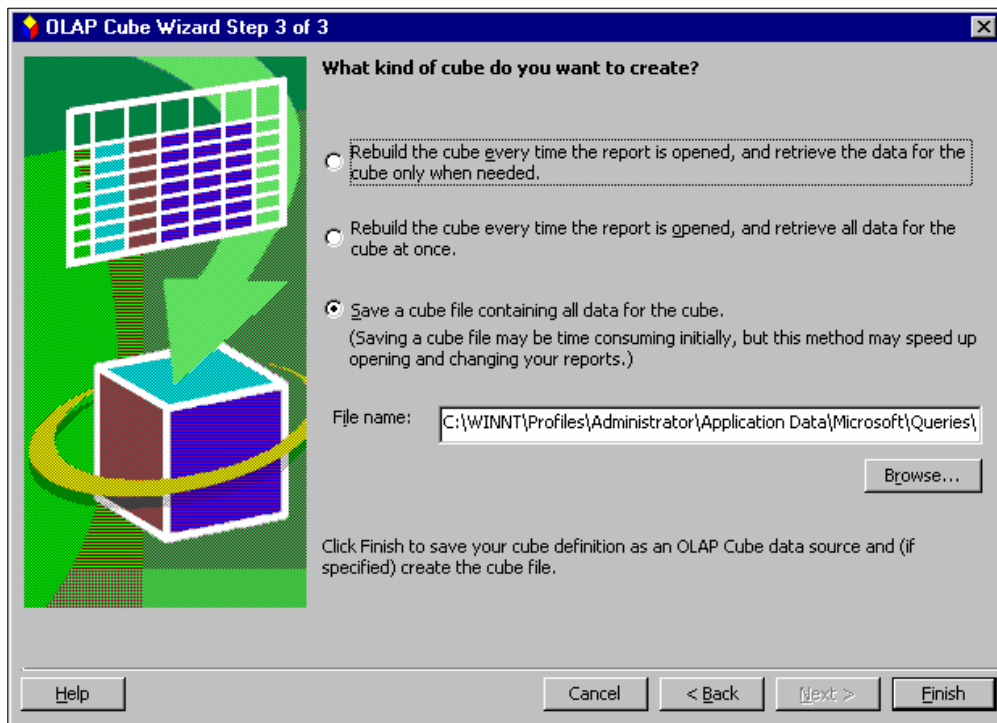
- The OLAP Cube wizard will lead you through three steps – firstly selecting which fields you want to summarize.



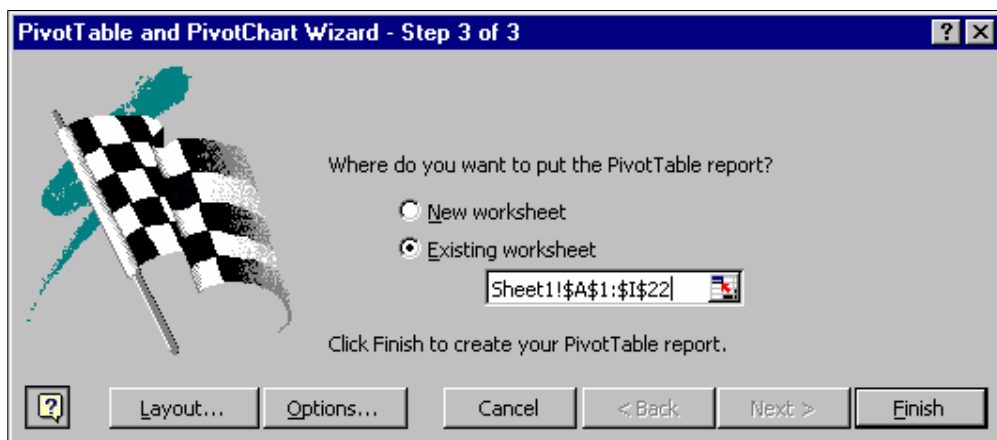
- Next you choose which fields will become the dimensions to your Cube – these become the dimensions that you can operate through in your final analysis.



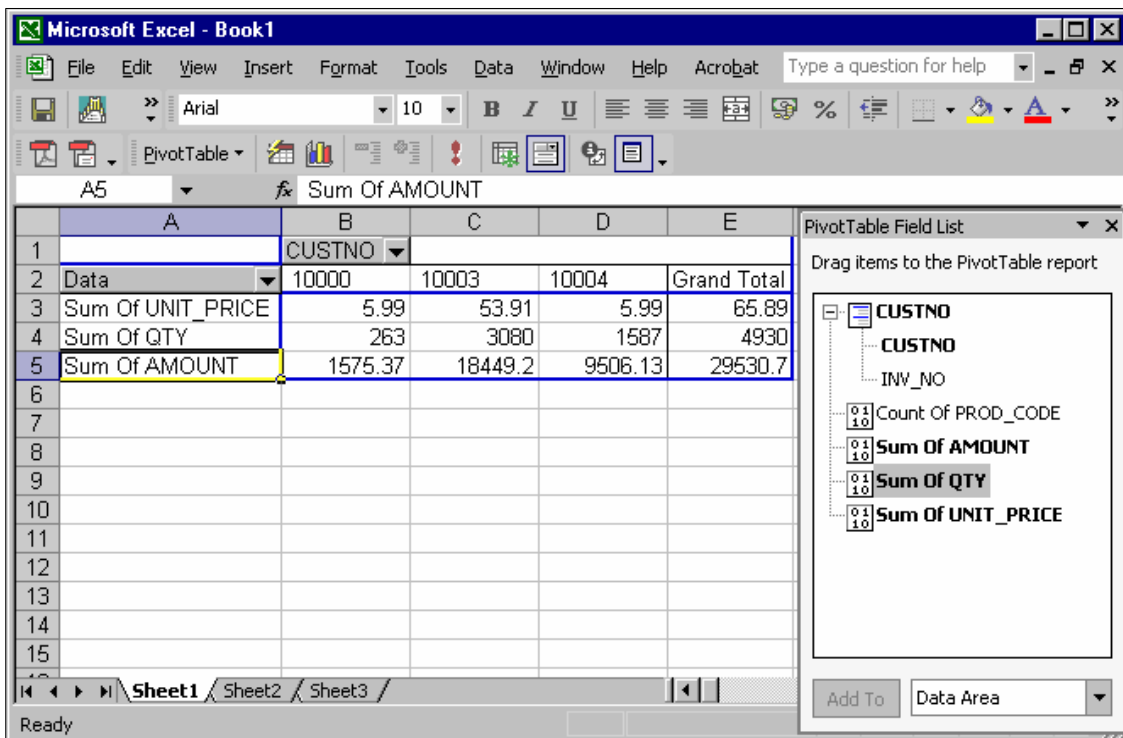
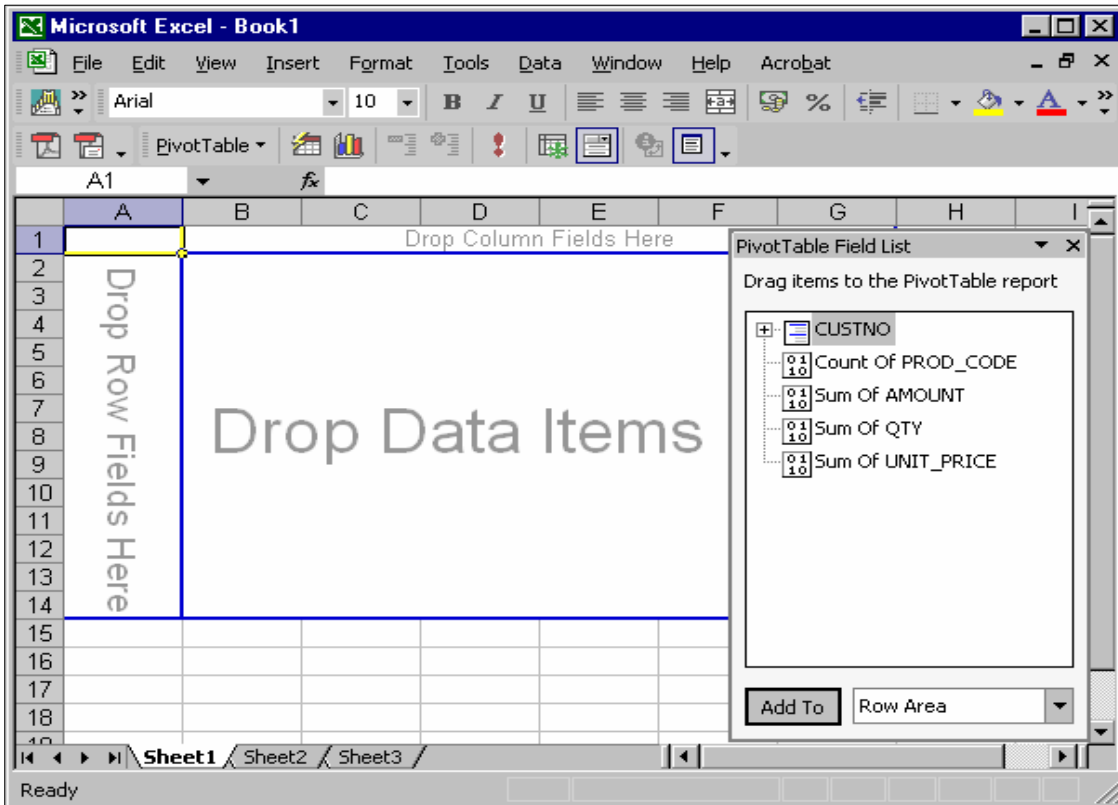
- Finally you save the OLAP Cube (or choose another option)...



- If, as suggested here, you started this exercise in Excel then Excel will assume you want your data returned to a spreadsheet as a PIVOT table... a PIVOT table provides multi-dimensional analysis of data.



- Once you've saved your OLAP Cube you can of course bring it directly into EXCEL by Data → Get External Data → Import Data and then select type OLAP QUERY – file type “.oqy” or OLAP Cube file type “.cub”.
- Next lay out your pivot table ...



- And lastly drag and drop fields to create your final PIVOT Table.

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