

## HOW WILL EXCEL USERS BENEFIT FROM INTELLIGENCIA?

For Office 2007 Microsoft has made significant improvements in the way that Excel works with Analysis Services: so how can Intelligencia help you to be more productive? The first thing to understand is that the changes to Excel have been targeted at ad-hoc query and analysis in which the formatting of data is not as important as the data itself. With Intelligencia we have focused on the creation, and maintenance, of print quality reports providing complementary features which address specific user needs. The result is a simpler, quicker and more maintainable way to build and distribute reports.

### WORKING WITH DATA

Excel implements its query building through Pivot tables. This generic interface was originally designed to analyse data in relational tables and has been extended to work with SQL Server Analysis Services. Because of its lineage PivotTable services imposes a number of restrictions which can be frustrating for report design. Intelligencia is specifically designed to work with OLAP cubes. The Investigator query builder makes full use of the powerful MDX language for building queries allowing you to extract the data you need in the format you require. Some examples of how this helps are:

- **Totals at the bottom of data groups:** Excel does not support PivotTable queries where the totals of each group of data are positioned at the bottom of the data group. This may sound trivial but ask any accountant how their P&L or balance sheet is structured and you will begin to understand the problem. This problem is not confined to accounting; in fact it is the convention for most printed business reports. Intelligencia orders data this way by default so you don't even have to switch an option on in order to get the expected result
- **Sorting and Filtering:** PivotTable services in Excel does not allow you to sort or filter on any data that spans more than one level in a hierarchy. This includes sorting data within groups that exist within the hierarchy. Intelligencia allows you to sort and filter both within groups of data and also breaking the hierarchy to analyse any set of data.
- **Inserting calculated rows/columns:** Pivot tables do not allow you to insert calculated rows and columns into a query. This means that you will frequently need to burst a report into calculated cells just to add a calculation. The result is a report that is difficult to maintain as the cube changes. Intelligencia allows you to build calculated rows and columns using our (patent pending) spreadsheet calculation interface which allows you to build sophisticated queries using your Excel skills.
- **Advanced selection of fields:** Excel assumes that any time you add more than one hierarchy to the axis of a report all the selected fields in that hierarchy should be displayed. Often this means that you have to hide rows or columns. This is fine for a static set of data, but if the cube changes the hidden rows and columns do not automatically move with data. Intelligencia has full support for "asymmetric queries" allowing you to build any set of data you require in a simple and maintainable way.
- **Calculated Members:** In Excel calculated members in a cube are not displayed by default. For the user this can be very confusing as they may not be aware that they can even go looking for these fields. In Intelligencia we display calculated members by default ensuring that the user has access to all the information provided by the cube designer.
- **Cell formulae:** Excel will not let you burst a query into cell formulae unless the query conforms to a very restricted set of rules. Also when a report has been burst into cell references each cell is processed individually which can be slow for large queries. Intelligencia can burst any query into cell references and will continue to process the query as a single call to the server increasing the performance of large queries.

### REPORT FORMATTING

Because, in Excel, each query is treated as a "block" of data there are restrictions on how it can be formatted. This can impact the readability of reports, particularly those which contain large amounts of data. Some commonly used formatting options are also difficult to find. Intelligencia provides "1 click formatting" for the majority of typical reports with a wide range of customization options:

- **1 click formatting:** Intelligencia provides wide range of formatting and layout tools for tables. A customizable gallery of 98 different combinations of style and layout provides most commonly used business formats. With one click Intelligencia will apply highlighting for totals, spacing between rows and columns, borders and fonts.

- **Formatting of totals and sub-totals:** Excel does not understand hierarchies with respect to the automatic formatting of values. Formatting is applied instead by level which leads to detail values being highlighted and more significant totals being more difficult to read. Intelligencia understands cube hierarchies and will apply logical formatting based on the data being displayed.
- **Intelligent defaults:** In Excel a number of commonly used and important options are switch off by default. Some of these options are also not easy to find. For example the option to centre and merge titles is switched off where it would be desirable in the majority of instances. Intelligencia implements defaults based on the most commonly built reports.

## MAINTAINABILITY

A result of the query building and formatting constraints described above is that users will often “burst” reports onto cell references. This provides the ultimate flexibility in formatting but has a severe impact on maintainability. Changes to the cube structure cannot be reflected automatically in your report leading to possible errors and omissions. Intelligencia addresses report maintenance in the following ways:

- **Best practice by default:** Intelligencia facilitates the building of high quality queries from cubes “by default”. Our philosophy is to make the “right way the easy way” which naturally leads to maintainable solutions. Queries will automatically recognise changes in cube structure such as the addition of new organisations or accounts.
- **Datasource management:** Another source for potential problems is when the technical infrastructure needs to change. If, for example, you need to re-deploy a database to a new piece of hardware your Excel users will all have to change their data connections. Intelligencia provides a web service that manages connections centrally meaning that an administrator can change the server location in one place and users will be unaware of the change in architecture.

## INTEROPERABILITY

Intelligencia is designed to allow greater interoperability with other tools and technologies allowing end users to access data in different environments and to collaborate with developers in IT. The following features explain how we improve interoperability and collaboration:

- **Publish queries to Reporting Services:** Intelligencia allows you to publish fully formatted queries directly to Microsoft Reporting Services allowing end-users to share reports via the intranet. A developer can download and enhance the report published by the end user providing a means of collaboration not normally available.
- **Share queries between applications:** Intelligencia reports can be shared between all our tools including Word, Excel and Reporting Services as well as our Desktop Client.
- **SAP Business Warehouse:** Intelligencia supports SAP business warehouse and other ODBO compliant databases allowing you to integrate data from several sources into a single report.

## AUTOMATED DISTRIBUTION OF REPORTS

Intelligencia makes it easy to distribute reports via email and to create report libraries of reports which can be accessed via SharePoint.

- **Automatic linking of shared parameters:** Intelligencia makes it easy to set up parameters whilst building queries. The parameters are displayed in a task pane alongside the workbook making their selection clear and simple for report users. Parameters that are shared between queries are automatically linked.
- **Automated distribution of reports:** The automation window in Intelligencia allows you to distribute reports in native Office 2007, 2003 or pdf formats. Reports can be emailed or saved to a file system for distribution via SharePoint. Email distribution lists can be managed as simple Outlook rules or delivered through a custom application interface.

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