Convincing Reasons to Move to Web Intelligence

SAP

Applies to:

BusinessObjects 5.x/6.x, SAP Business Objects XIR2 to XI 3.1

For more information, visit the [Business Objects homepage](#).

Summary

This document presents arguments why any company should move from Desktop Intelligence (DeskI) to Web Intelligence (WebI). It presents feature-level reasons, as well as overall deployment-level advantages of Web Intelligence. It also addresses some major differences between the two applications. This document is complement by a second paper, called "Managing the Conversion Process".

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Author Bio

Henri Theuwissen has more than 25 years experience in Business Intelligence and Data Warehousing. He is founder of BI Knowledge Sharing. BI Knowledge Sharing is specialized in on-site training, using in house developed, customized training material. BI Knowledge Sharing offers consulting and coaching in the areas of query and reporting, universe design, security and administration. Henri Theuwissen is committee member of the Belgian SAP Business Objects user group. He holds a degree of civil engineer in computer sciences from the University of Leuven. Since 2005 he is speaker at the Business Objects user conferences in the USA and in Europe.

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Introduction

Going to the Web

In the past the web technology was not mature for reliable, fast applications. Knowledge workers and business analysts ran their reporting and analysis tasks in a full client environment using Desktop Intelligence, formerly known as BusinessObjects.

On the other hand, in today's business, companies are spread over large geographical areas, have a large geographical spread, with subsidiaries, partners and customers in several countries, and continents. Within every company more and more users have reporting and analysis needs.

Distributed environments with software installed locally on PCs generate a very high cost of ownership for the companies:
- Software licenses for third party software, for instance for database connectivity
- Support and maintenance costs for installation of software upgrades, patches, new releases, etc. (estimates run as high as $1000 per desktop per upgrade)
- Local helpdesk requirements
- Local language support for end-users

Besides the cost, there is the potential risk that companies have installed different versions of the software throughout the organization, with even different service pack levels. This can require a huge administration effort to manage all this. Moreover, every PC has software installed from different suppliers. Most software vendors frequently ship upgrades and these upgrades are not installed at the same time on all PCs which might lead to incompatible combinations of software, again putting extra pressure on the support and maintenance group.

During the last decade, the evolution in web technology provides a distributed environment that enables real production applications for a large user community:
- Because of the increased bandwidth, larger volumes of data can be transferred in a shorter time, resulting in faster response times.
- The improved robustness enables the creation and the corporate wide deployment of reliable, stable architectures.

The combination of the business requirements and the technological capabilities results in a move to web-based applications. Companies move from full client to web-based solutions, mainly for financial reasons and in order to manage the architecture. Web-based applications facilitate the process of deployment and reduce the resources and effort required for centralized management, administration and support.

Additionally, Web Intelligence offers other major benefits to move from the full client Desktop Intelligence to the web solution:
- Ease of use
- Interactivity on the web
- Extended feature set
- Suite-wide integration with other products (Xcelsius, Mobile, Live Office, …)

The added value of the web interactivity should not be underestimated: given that web-based consumers of Desktop Intelligence content have no option to edit the content when viewed in Desktop Intelligence's HTML viewer, they have no choice but to ask report authors each time they want even the slightest modification. Worse, many of these users' needed modifications never happen at all because they don't even know the report modification process. These users are not able to modify, even slightly, the BI content to answer questions related to their individual business contexts. They are forced to consume a "one-size fits all" report that at best enables some prompting.

Now consider Web Intelligence's capabilities for interactive, web-based consumption. By giving a percentage of web-based users the rights to conduct simple report modifications, it alleviates the backlog for report modifications that Desktop Intelligence users face today. This frees up authors to focus on other, value-added tasks that require their deep expertise in data and business.

Note: The conversion from Desktop Intelligence to Web Intelligence:
- Reduces the total cost of ownership (TCO).
- Increases the ease of deployment and upgrade.
- Offers better web-based performance and higher interactivity over the web.
- Is more closely coupled with other capabilities offered by SAP products such as Xcelsius, Explorer, Live Office, Mobile or BI widgets

Managing the Switch

Switching to a new system can be a challenge. People have a natural resistance to change, people feel most comfortable in situations that they know, in environments that they are used to. People always feel obstructions to new environments, new behavior or new ways of working. It is important to communicate about the added value and the added functionality offered by Web Intelligence.

Quote: "We used Web Intelligence 2.0, which came with V6.5. We've built a few reports with the tool, where users could examine the information and the only option they had was to refresh the data. We hadn't looked at Web Intelligence's evolution and we were positively surprised to see how it evolved and how much capabilities we can offer to the users with limited training." (BI architect in a financial company)

Some power users are convinced that there are benefits using Web Intelligence, but they still want to have a full client solution, to allow them to:
- Work with personal data, stored for instance in Excel
- Work on several documents at the same time
- Have calculations executed on the local PC instead of processing on the server
- Work offline

These features and more are covered by the Web Intelligence Rich Client. For more information, please refer to the later chapter on this topic.

There are benefits on technical level (IT), financial level (cost) and functional level to convert from Desktop Intelligence to Web Intelligence. The conversion is a win – win for the IT department and for the business users. Web Intelligence:
- Relieves the work of report authors and support teams:
  - Many functionalities are standard features unlike Desktop Intelligence where complex manipulations were required.
  - Through extended interactivity business users require less support.
  - Report maintenance backlog by report authors or power users is reduced, since most modification requests can be executed by report consumers.
- Empowers business analysts:
  - Several enhancements provide great flexibility and interactivity in reporting.
  - They are self-serving, less dependant on authors and support teams.
  - They can react faster on questions from management.

This document will show that:

- Web Intelligence is overall much more user-friendly than Desktop Intelligence. The development was focused on the business users' requirements.
- Numerous enhancements to existing features in Web Intelligence result in increased convenience to use the tool.
- Web Intelligence extends capabilities compared to Desktop Intelligence functionality.
- Web Intelligence offers several workarounds for Desktop Intelligence features that have not yet been implemented.

For more information on how to manage the switch to Web Intelligence, please refer to the companion paper, titled "Managing the Conversion from Desktop Intelligence to Web Intelligence".

Desktop Intelligence Features in Web Intelligence

There are some workflows that are easier in Desktop Intelligence, and there are some Desktop Intelligence features that are not yet implemented in Web Intelligence. Although in a current release a certain workaround is required to emulate a feature, the functionality might become available in a future service pack or major release. The product management team is open for all comments and suggestions. We have seen several examples of their reactions on user requests or comments. The table below lists a set of features that were not available in the first release but were implemented later.

Desktop Intelligence Features	Web Intelligence Release			
	XIR2	XI 3.0	XI 3.1	XI 3.1 SP2
Edit SQL	✔	✔	✔	✔
Offline capability		✔	✔	✔
Personal data providers		✔	✔	✔
MultiCube (ForceMerge) function		✔	✔	✔
Support large datasets			✔	✔
Query on query				✔
Fold / Unfold				✔

Experienced Desktop Intelligence users sometimes perceive Desktop Intelligence superior to Web Intelligence, based on specific workflows. To illustrate this, consider the Formula Editor window. The vast majority of the Formula Editor capabilities are the same in both tools. Desktop Intelligence supports some workflows that are better than the Web Intelligence workflows, such as a feature which automatically builds the dimensional context for a formula based on the exact context in which it is used. Power users know how to define context and can do it "manually" in a few clicks, but this is a handy time-saving mechanism. Desktop Intelligence users however often overlook the "type-ahead" feature in Web Intelligence which provides a list of possible objects and functions to choose from based on the first few characters typed. This also is a huge time saving feature, but one that Desktop Intelligence doesn't have. Web Intelligence has some additional useful functions as well. Again, the vast majority of capabilities are identical between the clients, but some individual features or sub-features can be found in one client or the other.

I believe that the product team should implement some changes to the Formula Editor window. For instance in Desktop Intelligence, the user is better guided to what to choose next because Desktop Intelligence adapts and changes the options as you type.

Notice that several channels exist to provide feedback to the product teams: the GBN Influence Council or the Special Interest Groups. See "References" at the end of the document.

Ease of Use and Ease of Maintenance

Most software development is done by very technical people without sufficient attention to how the end users will eventually work with the tool: the result is OK on a technical level but is sometimes not so easy to use for less technical business users.

Report authors and business users in Desktop Intelligence often refer to tasks that require too many windows and pop-up screens where they lose the overview.

Web Intelligence provides a better-organized presentation of tasks, results and properties, compared to Desktop Intelligence. While these benefits improve the user experience for business users, they also extend to power users in terms of flexibility and productivity. The developers of Web Intelligence tried to use as few windows as possible, still maintaining the overview.

The effort spent to make Web Intelligence more user-friendly than Desktop Intelligence results in higher user productivity and lower training cost. Since the learning curve for Web Intelligence is lower, the number of report creators increases in every company, relieving the workload on the support teams, resulting in faster report delivery. Easier report maintenance will increase the life-span of the BI content and increase end-user productivity.

User-friendly Query Panel

Presentation of Classes, Objects and Filters

Classes, objects and pre-defined filters appear in a single window. Within Desktop Intelligence pre-defined filters are displayed in a separate tab, which reduces the likelihood that business users will locate and use them.

A universe designer in a financial company said: "I spent a lot of time in defining a set of predefined filters to facilitate report creation and to reduce the error risk; but 90% of the report authors never use these filters because they do not appear together with the objects. These authors create these filters themselves again and again in each report. It's a waste of time and effort and increases the maintenance".

Drag-and-drop

In Web Intelligence, drag-and-drop functionality has been improved so people can quickly move multiple selections into the Result Objects pane or move objects from the Result Objects pane into the Query Filters pane to build conditions. Desktop Intelligence users must drag-and-drop object by object from the Universe pane into the Result Objects pane. Although this is a small feature, it has been asked for many times since version V5.

Many power users receive reports, created by other report authors. Often they want to add additional filters to the query, based on objects in the Result Objects pane. When these users are not familiar with the universe it is difficult for them to find the class in which the object is located. (The workflow to build a filter in Desktop Intelligence starts by selecting the object in the Universe pane). Within Web Intelligence this issue does not exist because the Web Intelligence workflow allows users to drag objects from the Result Objects pane into the Query Filters pane. This improves the ease of use for the query authors and avoids frustrating search operations.

Clearing Selected Objects

By clicking a single icon, Web Intelligence users can clear all objects from the Result Objects pane. Within Desktop Intelligence people can only remove one object at a time from the Result Objects pane. This is important because query design sometimes requires several iterations – starting from scratch – to get the required set of dimensions and measures without issues with contexts or incompatibility between objects.

Change Source

Change source enables users to completely remap objects from one universe to another. This is a very important task for any content development process that requires Development - Test - Production workflows. In this workflow, Desktop Intelligence users lose any objects that do not exist in the other universe in their query and within all reporting blocks. They must manually add the new objects to the query and they need to rebuild each block in which these objects are used. This maintenance effort for Desktop Intelligence users is huge compared to the effort for the Web Intelligence users.

Object Information

Within Desktop Intelligence users can open the information pane in the Query panel by selecting the Information icon. This option does not exist in Web Intelligence. However, moving the mouse over any class or object in the universe pane shows a tip text with the object information.

Web Intelligence offers additional information: moving the mouse over any object in the Result Objects pane shows tip text with additional information about the object. This information includes the object name, the class name, the object type and the description that was specified by the universe designer. This information enables users to rely on the much easier recognition task – for example, what is the difference between Prod_Level_4 and Prod_Level_5 objects? – rather than being forced to recall the subtle differences between levels of content. This reduces the training required to understand the data – often the biggest portion of end-user training time and costs.
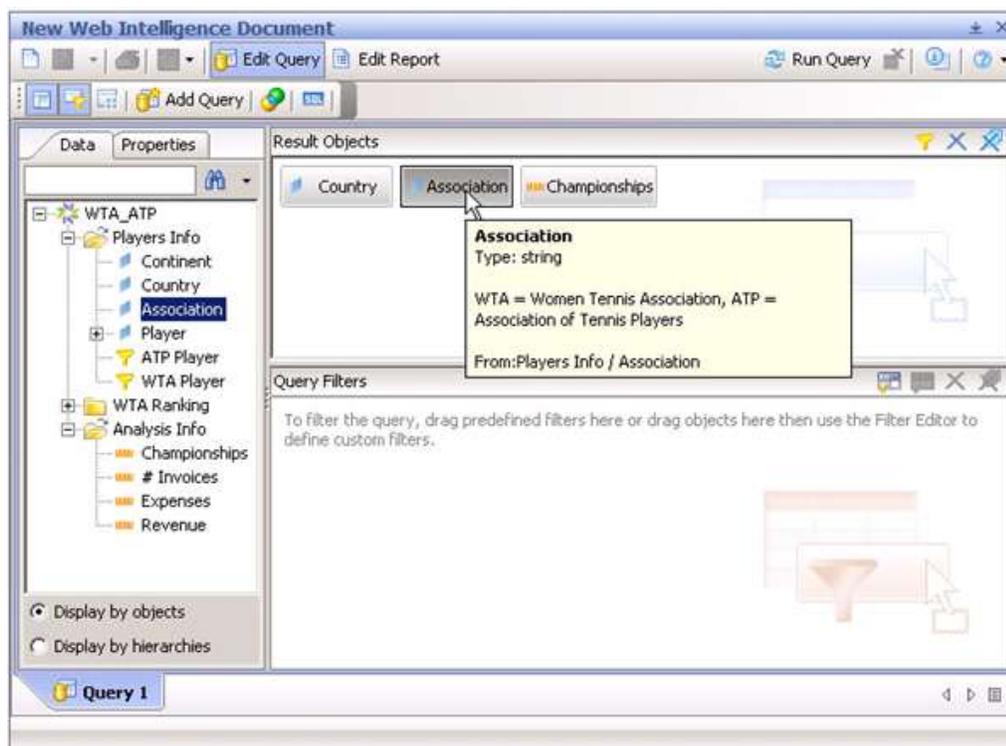
Objects and Filters together - Tip Text Information

Scope of Analysis

To define a custom scope of analysis for drill, Desktop Intelligence users must display an additional pop-up window, whereas in Web Intelligence an extra pane is integrated in the Query panel.

Combined Queries

Building combined queries (Union, Except, Intersect operations) in Desktop Intelligence opens an extra tab for each contributing query, whereas Web Intelligence allows users to build the combined query within the Query panel.
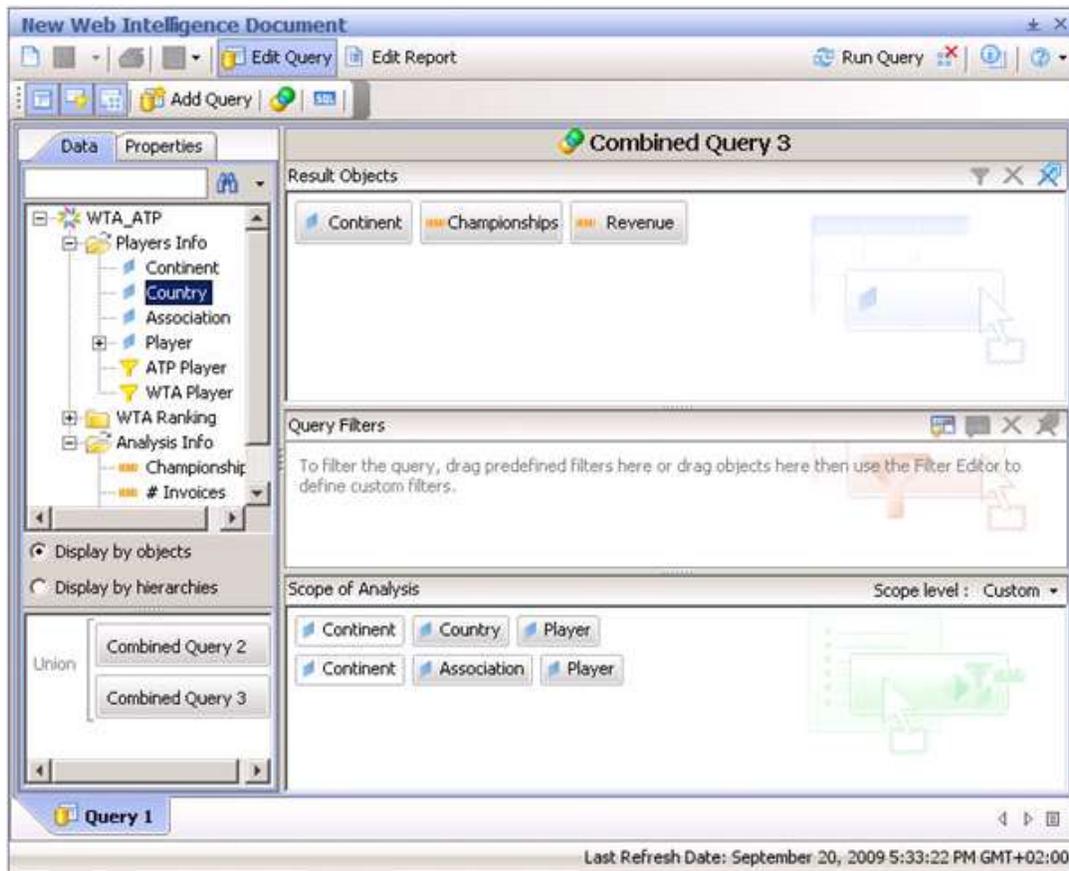
Combined Queries and Custom Scope of Analysis

Subquery

Building a query with a subquery adds an extra tab to the Query panel in Desktop Intelligence for each subquery. Within this additional tab users must define the subquery. Hence there is no overview of the complete query, and no overview of any other filters in the query. Within Web Intelligence subqueries are designed and represented graphically within the Query Filters pane in the Query panel, along with other types of query filters. This offers a full view of the complete query, including all query filters. This feature results in easier maintenance and trouble-shooting as well as fewer errors during the query definition process.
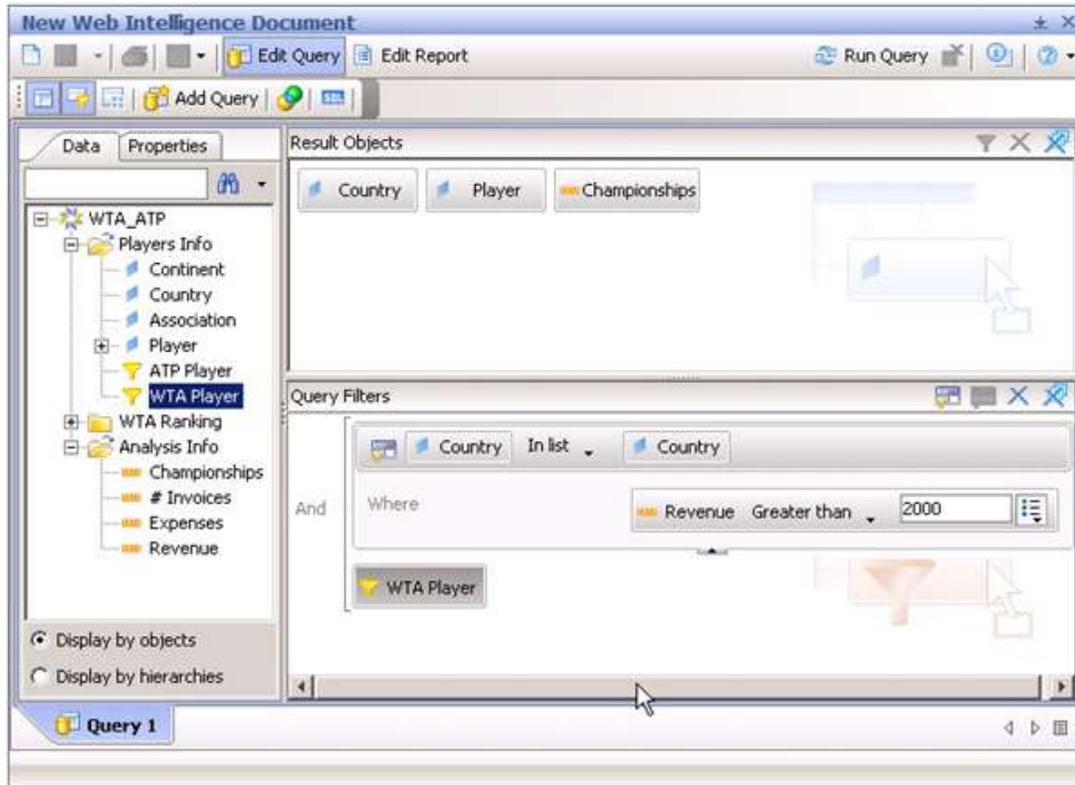

Query Filter with a Subquery

User-friendly Report Panel

Report Filters

In Web Intelligence, users can use the Filter icon on the Report toolbar to build a filter on a report block, allowing users to select values from a pop-up window with a list of values. People also can build more complex filters, with formulas for instance. Within Desktop Intelligence people use the Format Filters window. When multiple filters are defined on one report block, this window does not provide an overview of the definition of all filters defined on that report block. Within Web Intelligence a Report Filters pane is integrated in the Report window. The Report Filters pane shows the definition of all filters defined on a report block or on a report and the relation between these filters.
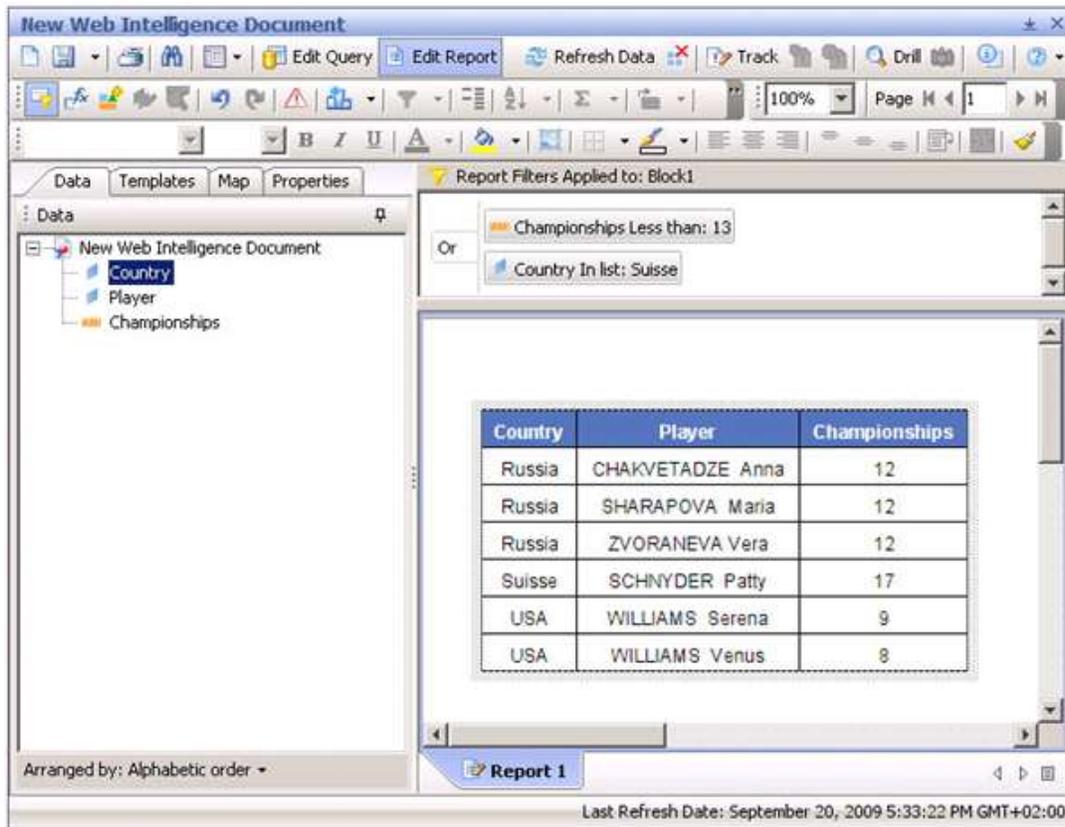

Report Filters Pane

Business users experience the Report Filters pane as clear and easy to use. Experienced Desktop Intelligence users consider it as too restrictive. Desktop Intelligence offers a range of functions to build complex formulas. To build similar filters in Web Intelligence a workaround is required by creating additional variables.

Summary Information

A Desktop Intelligence user from a governmental company said: "Several of our reports are quite complex and most of the reports are created by external consultants, who left the company. We are responsible now to maintain these reports, but we are afraid to modify the report because we don't know how it hangs together. Especially the different filters that are applied on different report blocks and charts are unmanageable".

Web Intelligence offers the Filter map, available in both the Java Report Panel and in dHMTL. The user gets an overview of all global filters and block filters, facilitating report maintenance.
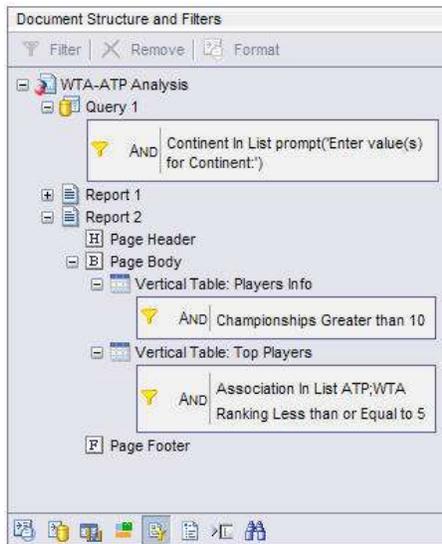
Document Filters Summary

Talking to business users who converted from Desktop Intelligence to Web Intelligence demonstrates that these users appreciate all efforts from SAP Business Objects to improve ease of use and ease of maintenance. However they do regret that unlike within Desktop Intelligence, Web Intelligence does not allow them to turn a local filter into a global filter, just by using drag-and-drop.

Enhancements to Existing Features with Large Impact

Details can make a large difference in how the business users perceive the tool. Small changes in the tool can increase the acceptance ratio of the business users. These small changes are possible in two areas:
- A consistent look and feel and behavior of the software.
- During development, encourage the developers to "think as the business user". Often the developer has a completely different way of thinking than the business user. Several tools exist in the market that were tested without any functional or technical problems, but the first usage by business users resulted in problems or unavailable options.

Consistent Environment

Consistency is very important to assure the confidence of the business users. It is important that the same functionality is always available in the same way, through the same icons or buttons for instance.

Although this seems to be a detail for experienced users, it is definitely important to increase the degree of acceptance by business users. Inconsistency creates uncertainty; users do not feel comfortable with the tool and may resist adopting it.

Compared to Desktop Intelligence, extra effort has been spent during the development of Web Intelligence to build consistency in the tool. This is illustrated by the following example. Consider three different actions that require priority settings:
- A table with breaks on different columns.
- A table with sorts on different columns.
- A column on which multiple alerters are activated.

Within Desktop Intelligence priority setting is defined in three different ways:
- Sort priority is defined or changed through up/down buttons.
- Break priority is set within an extra window in the Format Breaks options.
- Alerter priority cannot be set: the priority is set by the sequence of specifying the alerters. Changing the priority is only possible by removing the alerters and adding the alerters in the correct sequence on the column.

This means three different workflows for functionality that is similar. For experienced users or users with IT skills this might be not important, but for the occasional business user this is confusing. In Web Intelligence, users will always find up/down buttons: this ensures a consistent way to perform similar actions.

User-focused Development versus Developer-focused Development

A business user's tool must be as intuitive as possible. The easier the usage, the higher the acceptance rate of business users and the lower the training costs. For Web Intelligence, the developers spent much more effort on details than in Desktop Intelligence. This is illustrated by the following examples:
- Ranking data
- Freestyle input in custom sorts
- Additional operators
- Query enhancements

Many thoughtful improvements were added to Web Intelligence. These are simple, small changes compared to Desktop Intelligence, but business users receive tremendous benefit and increased productivity as a result.

Ranking Data

Almost any business question from management may involve identifying the "top" or "bottom" ranked items. Every day business analysts seek answers to questions like "What are our cash generators?", translated to "What generates the highest revenue?". Ranking data provides an answer to such questions. The question itself directs users to try adding ranking on the measure, whereas actually the dimension (product, country, sales person) that generates the highest value of the measures is searched for. The implementation of ranking in Desktop Intelligence is very strict: people must select a dimension to be able to define ranking. If users select a measure, the ranking feature is not even available: the ranking icon is grayed, protected. The developer will argue that this is how it should work, that the functionality has been correctly implemented. For the business user however this workflow is confusing. The confusion is created by the difference between logical technical language and spoken business language. In Web Intelligence, users can select any column in the report block (either a measure or a dimension) and the ranking functionality is active.

The following example illustrates even more the different ways of thinking between IT developers and business users. Consider the table below, which shows revenue by continent and association. A developer might implement ranking in this way: "Show the top *n* dimension based on a calculation on the measure".

Continent	Association	Revenue
Europe	ATP	35,312
Europe	WTA	33,891
North America	WTA	6,443
North America	ATP	5,056
South America	ATP	2,506

Base Table

Within Desktop Intelligence the user is forced to select a dimension object, which results in a table showing for instance the top 2 continents based on total revenue, consolidated over all associations. The result is shown below.

Continent	Association	Revenue
Europe	ATP	35,312
Europe	WTA	33,891
North America	WTA	6,443
North America	ATP	5,056

Top 2 Continents

The business user might want to show the top 2 lines per combination continent / association, so using a combination of two dimension columns. This is not possible in Desktop Intelligence, unless the business user builds a workaround.

In Web Intelligence, people can select a check box to indicate whether they want one column only to build the ranking or the combination of all dimensions.
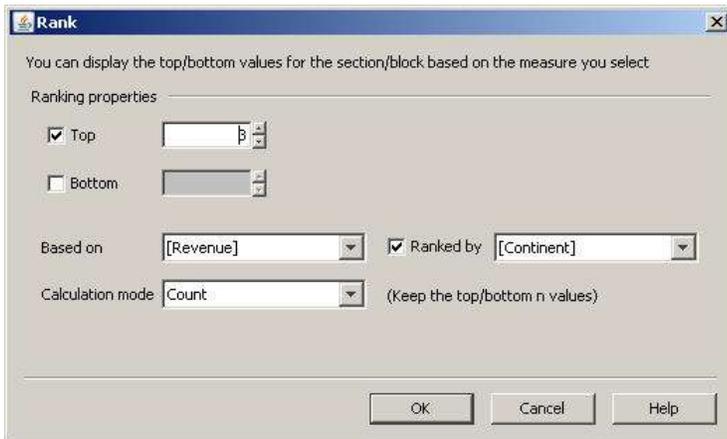
Rank Window

By clearing the check box "Ranked by", a table is created that shows the top 2 per continent / association combination.

Continent	Association	Revenue
Europe	ATP	35,312
Europe	WTA	33,891

Ranking Regardless any Dimension

The benefits of this feature are two-fold: ease-of-use and flexibility. The business user is self-serving, no highly skilled author is required to build this functionality, it is perceived as simply a matter of selecting standard options.

Desktop Intelligence enables only a strict 1-to-1 linking between what you check and what you rank, whereas Web Intelligence lets you mix any measure by any dimension. Or, by clearing the check box, you get a "generic" rank by the measure regardless of the dimension.

For interactivity, this is very powerful. Support from report builders is reduced to a minimum. Users can build a set of different ranked tables by working with the options. Consider for instance the base table below showing revenue by continent and association.

Continent	Association	Revenue
Europe	ATP	35,312
Europe	WTA	33,891
North America	WTA	6,443
North America	ATP	5,056
South America	ATP	2,506

Base Table

By specifying different options the business analyst can build the following results, based on the measure [Revenue].

Ranked By	Top	Calculation Mode	Result
[Continent]	2	Count	Top 2 continents with the highest consolidated revenue
[Association]	2	Count	Top 2 associations with the highest consolidated revenue
nothing selected	3	Count	The top 3 combinations of continent and association with the highest revenue
[Continent]	70000	Cumulative Sum	The top continents whose accumulated total revenue adds up to 70000
[Continent]	90	Cumulative Percentage	The top continents who's accumulated total revenue adds up to 90 % of the overall total revenue

Freestyle Input

Report Filters and Block Filters

Report filters or block filters in Web Intelligence allow people to combine values from a list of values and freestyle input to generate more general and more dynamic reports including filters on future values.

In the example below, two values were selected from the list of values, and an extra value ("Belgium") was added by the user.
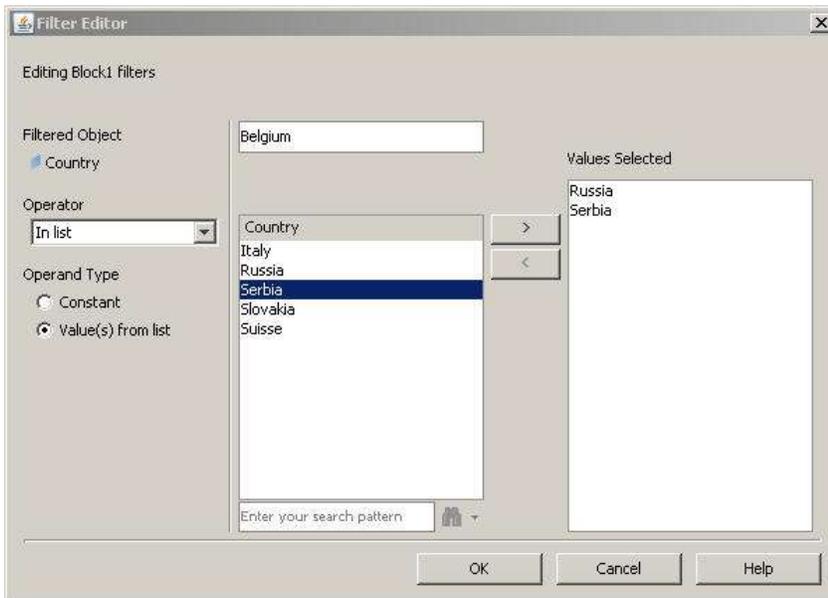
Report Filters from LOV and Freestyle Input

This is very useful for content that evolves in a predictable way: a sales manager has a report with monthly sales figures. Every month in the financial year, the report is extended with the data of the new month (starting with information for January to finally the full report with 12 months). Within the report, one table shows the sales for each of the last months per quarter (March, June, September, December). Within Web Intelligence, a sales manager can build in an intuitive way the correct filter for the full year with the data from

January: the filter is built once and no maintenance is required. The Desktop Intelligence author can build the same functionality but he or she must define a formula, and then modify values within the formula, with the risk for syntax errors. The Web Intelligence user is autonomous whereas the Desktop Intelligence user will probably call for assistance.

Sorting Data

In the definition of custom sorts, Desktop Intelligence users are restricted to the values that exist in the data provider. Web Intelligence allows users to add values that do not occur in the current query result, but values that might exist in the future. This feature in Web Intelligence provides more flexibility and supports a much easier evolution of BI content as values evolve from period to period in a predictable way.

Desktop Intelligence forces users to open up each sort, and integrate the new value into the sort, while Web Intelligence enables automatically adapting to new values – months, products, employees – as they are added over time. This feature in Web Intelligence reduces the maintenance costs and reduces the risk for errors when users forget to adapt their custom sort.

Additional Operands

Report filters in Desktop Intelligence only allow the AND operator; in Web Intelligence users can use the AND or OR operator, providing more flexibility.

In Desktop Intelligence users can build complex filters containing functions and calculations. This is not possible in Web Intelligence. Web Intelligence requires a workaround: you need to build additional variables and filter on these new variables.

Although this capability in Desktop Intelligence is quite powerful, it can be dangerous also, as illustrated by the following example.

Consider the table below, created in Desktop Intelligence. The table contains two measures and a formula.

Player	Points	Champion-ships	Avg
WILLIAMS Serena	3251	9	361
WILLIAMS Venus	2606	8	326
SHARAPOVA Maria	3626	12	302
IVANOVIC Ana	3828	14	273
JANKOVIC Jelena	3740	15	249
KUZNETSOVA Svetlana	3455	15	230
DEMENTIEVA Elena	3105	14	222
CHAKVETADZE Anna	2176	12	181
SAFINA Dinara	2522	14	180

Desktop Intelligence allows users to build a filter containing a calculation on the measure <Championships>. The filter was defined as:

```
<Points> / <Championships> > 250
```

In Desktop Intelligence the filter is calculated on the data provider, returning the values of <Championships> for which the filter formula is correct. These values are then used to filter the data provider, returning an incorrect result: calculating the filter formula returns the value 12 as one of the valid values, based on the line for "SHARAPOVA Maria". As a result all lines in the data provider with the value 12 for <Championships> are kept, including "CHAKVETADZE Anna" where <Points> / <Championships> < 250.

Player	Points	Champion-ships
CHAKVETADZE Anna	2176	12
DEMENTIEVA Elena	3105	14
IVANOVIC Ana	3828	14
SAFINA Dinara	2522	14
SHARAPOVA Maria	3626	12
WILLIAMS Serena	3251	9
WILLIAMS Venus	2606	8

These errors occur quite often. Especially when users create large tables on huge volumes of data, it is difficult to validate the results in reports. I've seen several reports where the authors indicate: "we have a result, it looks OK, so we'll publish it".

Web Intelligence does not support creating filters with functions or calculations. Web Intelligence requires users to build a new variable and add a filter on the new variable, which ensures that the report calculates the correct result. Removing this feature in Web Intelligence has reduced the risk that customers create incorrect reports.

Query Enhancements

Duplicate Query

People sometimes build multiple queries in one document. Regularly they build queries that are almost similar, with only minor changes between the two queries. In the finance department of a Dutch international bank, a business analyst had to create a report in which data for 2 different dates would be compared. The dates were parameters filled in using prompts. Furthermore there were 12 additional filter conditions. The analyst received two possible workflows for this problem: the easiest solution was building and linking two queries with exactly the same objects and filters, including the filter with the prompt. The report was created with Desktop Intelligence. Within Desktop Intelligence every query is built from scratch: result objects are selected, report filters are defined etc. Building the second query took quite some effort and intermediate errors before it was exactly correct.

Web Intelligence allows users to copy a query. Once the copy is created, users just add the required modifications. They reuse part of the work already spent in developing the first query. This is a huge benefit to the productivity of power users. Desktop Intelligence users are not aware of it. When power users are creating complex queries, they would greatly benefit from this duplication capability.

Change Universe

Most companies that I have visited have multiple implementations of Business Objects software: a development environment, a test environment and a production environment. Small changes can exist between universes or documents in these environments. People might want to refresh an existing document, using a different universe.

Within Desktop Intelligence the universe used for the refresh must contain all objects that are used in the document. Otherwise an error message is generated. Desktop Intelligence users spend a lot of time updating their reports to integrate their content and workflows in a development – test – production environment.

Web Intelligence guides the user in the creation of a correct report; people will receive a list of objects that do not exist in the new universe and they have the option to replace the object by another object or to remove that object from the document. From a productivity perspective this feature in Web Intelligence is a huge improvement compared to Desktop Intelligence.

Imagine the time savings that you get when you use this feature to run the report on the same universe, where you remap a query object to another query object and all affected tables and charts are updated automatically. This will reduce the number of reports enormously.

Extended and New Features

When migrating or upgrading to a new release or to a new architecture of any software, most people verify immediately whether they still have the same functionality as before:

- Is every option still available?
- What is changed in the user interface, which icon is where?
- Is an option or feature unavailable?

Once convinced about the compatibility of the new release, they start using the tool as they used the previous versions: they do not investigate, test or use the new features in the new release.

Web Intelligence offers a large set of new features, offering extended functional possibilities with benefits to the business user:

- Improved guidance to interpret results
- Flexibility in query prompts
- Enhancements in drill analysis
- Combining data sources through merged dimensions
- Ranking data
- Input controls

Visual Guidance

All BI content shared with other users is only as useful as the ability of the consumers to make sense of the data in the report. In terms of "ease of interpretation", the experience for consumers of Web Intelligence content is far superior to that of Desktop Intelligence. A good report should immediately catch the attention on the most important information. Web Intelligence enables authors to create a rich consumption experience for consumers.

Aids to speed up the understanding of the information in a report include:

- Comparing the result in a report with the result of a previous refresh.
- Meaningful alerters that immediately focus on exceptional data.

Data Tracking

To be able to compare two versions of a report, Desktop Intelligence users have to save different versions of the Desktop Intelligence report, using different names.

With Web Intelligence it is easy to view, review or compare different instances of the same report, by consulting the history in InfoView.

During one customer visit, one Desktop Intelligence user was showing me how she made use of her Desktop Intelligence content. She indicated the key report she used on a daily basis, and after opening and refreshing, she spent five minutes scrolling up and down a large table. She also had a printed copy of the report from the day before. When I asked what she was looking for, she replied that she was "trying to see if anything had changed since yesterday when she looked at the report".

To address this need, Web Intelligence provides a feature to automatically track the evolution of a report's data. This is especially relevant for data that changes frequently – end of quarter pipeline data on closed deals, employee status, tracking edits to personal data files, etc. This option, when turned on by the author, can be switched on or switched off by consumers. It allows consumers to show new or deleted rows, and/or changed data values. Users have full control about what they want to show and how they want to show it (using different colors, different backgrounds, using strikethrough etc.)

Within the report, it is even possible to get values from a previous refresh and to use these values in calculations. This can be implemented in a report by using the RefValue function. Using data tracking enables users to build knowledge about the data at first glance and reduces the time to analyze the information.

To illustrate data tracking, consider the result of a query, presented in a table.

Continent	Expenses
Europe	1,805
South America	170

Base Table

In the Data Tracking Options window, several options are specified, indicating how changes will be presented.
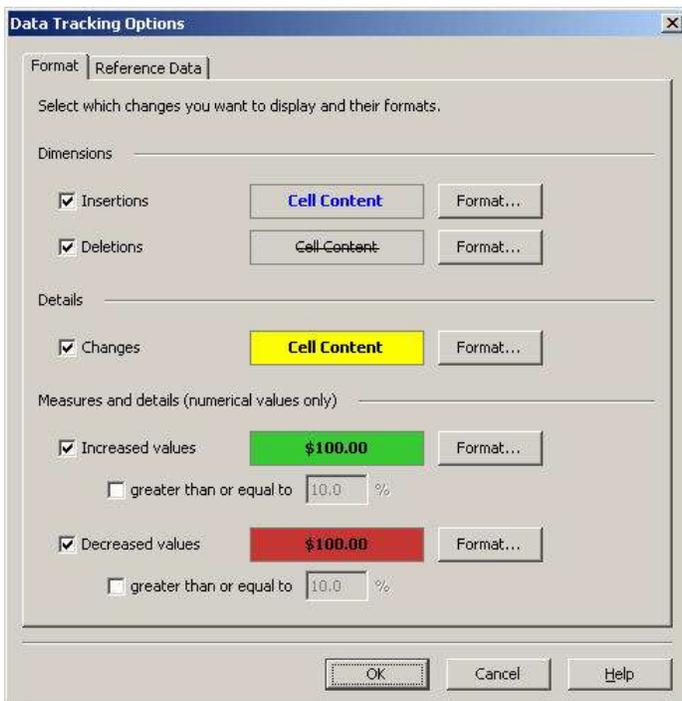
Data Tracking Options

Refreshing the data results in the following table:

Continent	Expenses
Europe	313
North America	530
South America	170

Data Tracking Result

- The "Expenses" measure for "Europe" decreased and is shown on a red background.
- The table contains a new value for "Continent" ("North America"). The line for this new continent is presented in blue.

While the table above is an artificial example and quite small, imagine the benefits for consumers of very large tables with hundreds of rows and dozens of measures.

Alerters

Exception highlighting through alerters has been available for a long time in Desktop Intelligence. An alerter is defined based on conditions. There are though some limitations in the usage of alerters in Desktop Intelligence:

- Conditions are built on one variable. When a condition requires multiple variables a workaround is required by creating a new variable first.
- Only a limited set of operators is available in the condition definition: there is for instance no simple way to check on NULL values.

Each of these limitations in Desktop Intelligence is removed in Web Intelligence: in addition to an increased number of operators, conditions can be complex, combinations of tests on multiple variables are available by default. Moreover the effect or result of an alerter can be a calculation. In Desktop Intelligence the author needs to create a new variable first and use this variable in the alerter. Desktop Intelligence requires workarounds to build the same functionality that are standard options in Web Intelligence. Maintenance of the Web Intelligence report will be much easier and the development time is shorter.
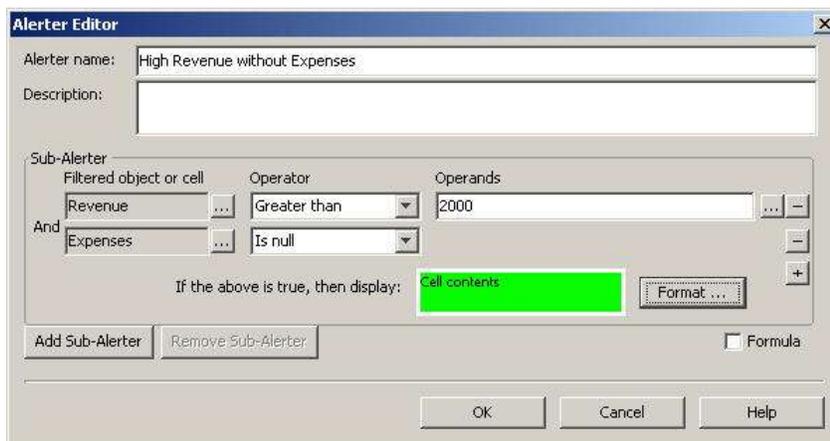
Condition on Multiple Objects

Calculation in Alerter Result

Prompt Flexibility

Report queries with prompts generate very dynamic reports. On the wish lists in the BoB forum, several users mentioned items to improve or enhance the usage of prompts; for instance they want to have default values or they do not want to select any value in a filter, they want to run the report for all values.

Several workarounds are built in Desktop Intelligence reports to ignore a prompt, to "remove" the filter containing the prompt, or to select all values:
- A first workaround is to select all the values from the list of values, presented in the prompt. The danger or disadvantage of this workaround is that the resulting filter will contain a condition "variable INLIST (*all values at that time in the List of Values*)". When refreshing the report the data is filtered to the values in the condition whereas the data base might contain other, new values. This results in partial correct results.
- Another correct workaround is to build additional objects in the universe. This requires building these new variables on different levels in the universe, resulting in more complex universes, requiring more maintenance. Many business users don't have access to the universe, nor do they even know whom to ask.

Web Intelligence allows users to specify several options, through the Prompt Properties window, such as:
- Default values.
- Freestyle input or restrict input to values from a list.
- Optional prompts. This option enables users to just ignore a prompt and to remove that part of the filter from the query, resulting in much improved performance over the alternative of including "all" values in the prompt. In some cases, the use of optional prompts even enables reducing the number of documents to build and maintain, as one single document gives the flexibility to define exactly the level of detail they want to retrieve in a query. One international insurance company indicated that the use of optional prompts enables them to reduce the number of reports by up to 50%.
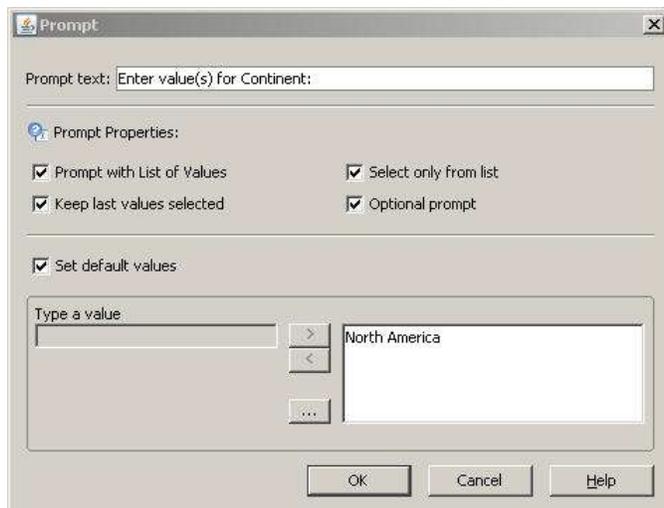
Prompt Properties Window

Analysis in Drill Mode

Drill Path Selection

Analyzing data in drill mode is based on hierarchies with several levels. Time hierarchies are typical examples of hierarchies with multiple, non-related paths. An example of one path is "Year – Quarter – Month – Date" and another example path is "Year – Week – Date". Since Year exists within two different hierarchies, analysis in drill mode can navigate into two different levels.

In Desktop Intelligence users have limited control about which hierarchy is selected for the drill action: the sequence of hierarchies, defined by the universe designer will identify the default hierarchy that will be used. Users can modify this default behavior by defining their user-defined hierarchies at the report level.

When Web Intelligence users drill on a dimension that exists in multiple hierarchies, they are prompted to select the hierarchy they want to use. The example below contains a query with the dimension "Continent". "Continent" appears in two hierarchies: a hierarchy called "Geographical" with the levels "Continent – Country – City" and another hierarchy called "WTA_ATP" with the levels "Continent – Association – Tennis Player". When a user drills on "Continent", a prompt is displayed to select the hierarchy to be used.
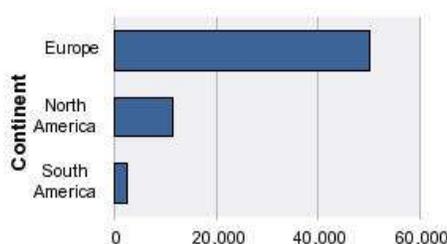

Drill Path Selection

Synchronized Drill

When analyzing data in drill mode, synchronized drill-down is impossible in Desktop Intelligence. In Desktop Intelligence, drill down is limited to a single report table or chart. Supposing that a report contains a table and a graph; when starting a drill action in Web Intelligence, users are prompted to specify the report block to start the drill action on.

Base Report for Drill Actions

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Web Intelligence offers several possibilities:

- First, when a report contains multiple blocks, the drill action can impact all blocks.
- Because of options settings, the result of a drill request may create a different result. When the option "Synchronized drill" is set, drill-down applies a filter on all report blocks and the report shows the same level in the hierarchy in all blocks. When the option "Synchronized drill" is turned off, filtering and drilling to another level is only executed on the block on which the drill action is requested, whereas for all other blocks only a filter is applied.
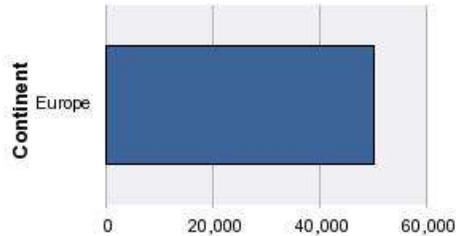
Synchronized Drill Turned Off
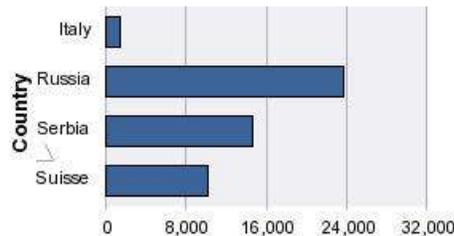
Synchronized Drill

### Combining Multiple Data Sources – Merged Dimensions

Data from different business areas can be combined into one report by combining different queries. In previous releases, the ability to link data providers was only available in Desktop Intelligence and not in Web Intelligence. With XI, the feature was implemented in Web Intelligence too: this feature is called "Merged Dimensions".

Where Desktop Intelligence always forces a full outer join, Web Intelligence, by default, does not generate a full outer join and enables much more specific slice-and-dice of the data by creating inner joins, left outer joins or right outer joins.

Linking data providers or merging dimensions is much more intuitive in Web Intelligence. The Merge Dimensions window:

- Offers a full overview of all data providers. In Desktop Intelligence, the process of identifying which dimensions have been merged requires constant and wasteful scrolling and clicking. For large documents containing hundreds of objects from multiple sources (not uncommon in some complex reports), discovering and maintaining the merged dimensions can take hours.
- Provides an easy way to merge dimensions.
- Enables users to view the values of the dimensions before merging, as well as the values associated with the newly merged dimensions across all data providers.

The example below shows the merge of one dimension from three data providers. The dimension contains city names and has a different name in each query. The merged dimension is identified by a new name. In the bottom pane of the Merge Dimensions window, the city values of the dimension in each query are shown.
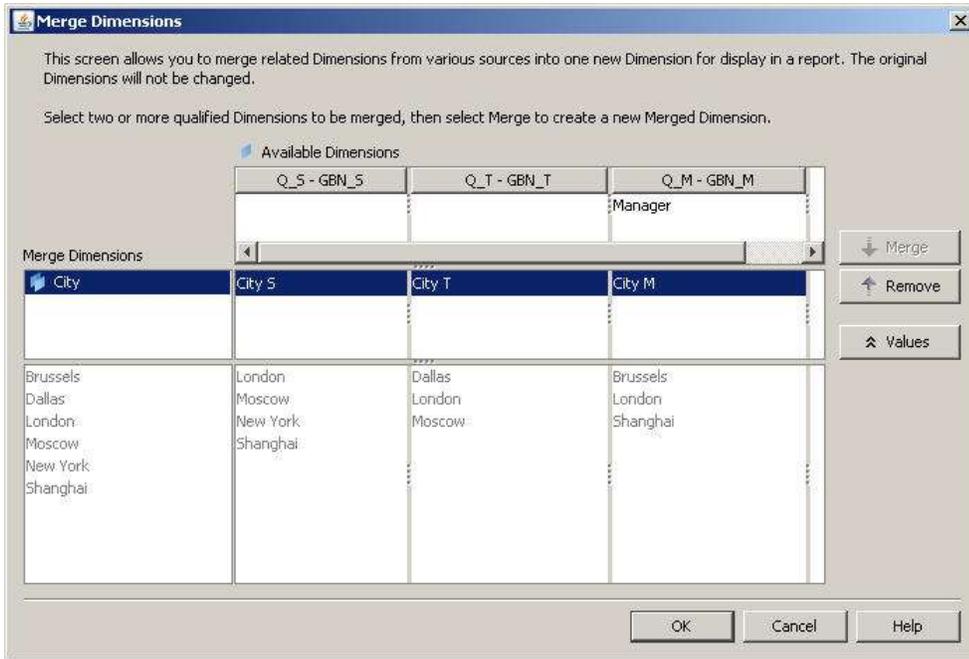
Merge Dimensions Window

Merging dimensions in Web Intelligence offers a wide variety of combinations: inner joins, left outer joins, right outer joins, full outer joins with additional options to display or hide rows with empty values. All these different results – providing an answer to different business questions on the same data – are created by just selecting an item in the Properties window. To build similar results in Desktop Intelligence, workarounds must be developed in the report. When analyzing the data, the business user can easily change the properties to get another view on the data.

Consider the result of three different queries, showing sales by city, targets by city and managers by city. Notice that not every city has sales, not every city has targets and not every city has a manager.

City S	Sales		City T	Target		City M	Manager
London	35		Dallas	20		Brussels	Peter
Moscow	40		London	60		London	John
New York	55		Moscow	60		Shanghai	Zheng
Shanghai	20						

       Sales per City   ***Targets per City***   ***City Managers***

Build a new table by using the merged dimension, and the values of "Sales" and "Target". The left table contains the information, as if a full outer join was created: all cities existing in any of the three queries are shown, even if there are no sales and no target value. This is what you get with Desktop Intelligence. The same result is created in Web Intelligence when you select the merged dimension "City". To show only those cities with at least sales or target information, just clear the option "Show rows with empty measures" in Web Intelligence. This option is not available in Desktop Intelligence and requires adding a filter on the table.

City	Sales	Target
Brussels		
Dallas		20
London	35	60
Moscow	40	60
New York	55	
Shanghai	20	

City	Sales	Target
Dallas		20
London	35	60
Moscow	40	60
New York	55	
Shanghai	20	

Full Outer Join   *Show rows with empty measures Turned Off*

Just by selecting the correct options or objects in Web Intelligence, any variation can be created to build the correct answer to any question. For instance:
- What are sales per city even if they don't have targets? Show sales and targets, limited to cities with sales values (Left table)
- What are sales per city only for those who have targets? Show sales and targets, limited to cities with target values (Right table)

City S	Sales	Target
London	35	60
Moscow	40	60
New York	55	
Shanghai	20	

| City T	Sales	Target
Dallas		20
London	35	60
Moscow	40	60

Left Outer Join   *Right Outer Join*

Selecting "City" from either the "Sales per City" or the "Targets per City" will create the correct result. Desktop Intelligence does not have these options and requires workarounds.

Ranking

Ranking data offers extended possibilities in Web Intelligence, compared to Desktop Intelligence. These extensions were developed based on feedback and enhancement requests from the users. The Rank window in Web Intelligence offers additional calculation modes, to request, by just selecting the option, tables that provide answers on questions like "Show the countries that generate up to 75% of the total revenue", or "Show the top products that generated up to 5,000,000". Building these tables in Desktop Intelligence requires complex calculations. In Web Intelligence it can take two clicks for a basic business user to get an answer to such as common business question. In Desktop Intelligence it can take an hour for a highly trained power user to build the solution.
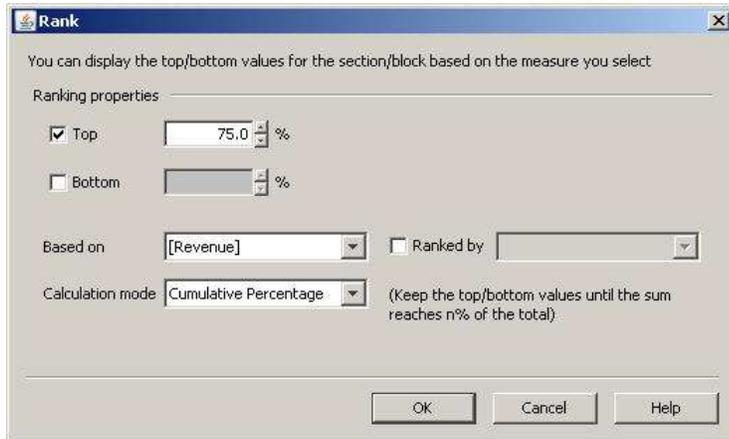

Ranking up to 75%

Input Controls

Input Controls were introduced in XI 3.1 SP2 for all clients, Java, dHTML or HTML. Users can add simple widgets, like radio boxes, check boxes or sliders. Each widget can control one or more tables or charts, for example to modify filters. Input controls can be integrated as a clickable chart, so report elements can control each other.

Reports users can easily preview affected content because the affected tables and charts are highlighted. Users can add new control widgets through an intuitive wizard. The administrators can fully manage these features through the "Edit Document" security rights in the Central Management Server.

This functionality is available for all Web Intelligence clients and does not exist for Desktop Intelligence. It gives a huge power to the business analysts: they might for example add a slider widget on a measure to do "What if?" analysis. The possibilities of analyzing the data are almost endless.

The benefits include:
- Less development effort required
- More autonomy for the business users
- More flexibility
- Reduced training requirements
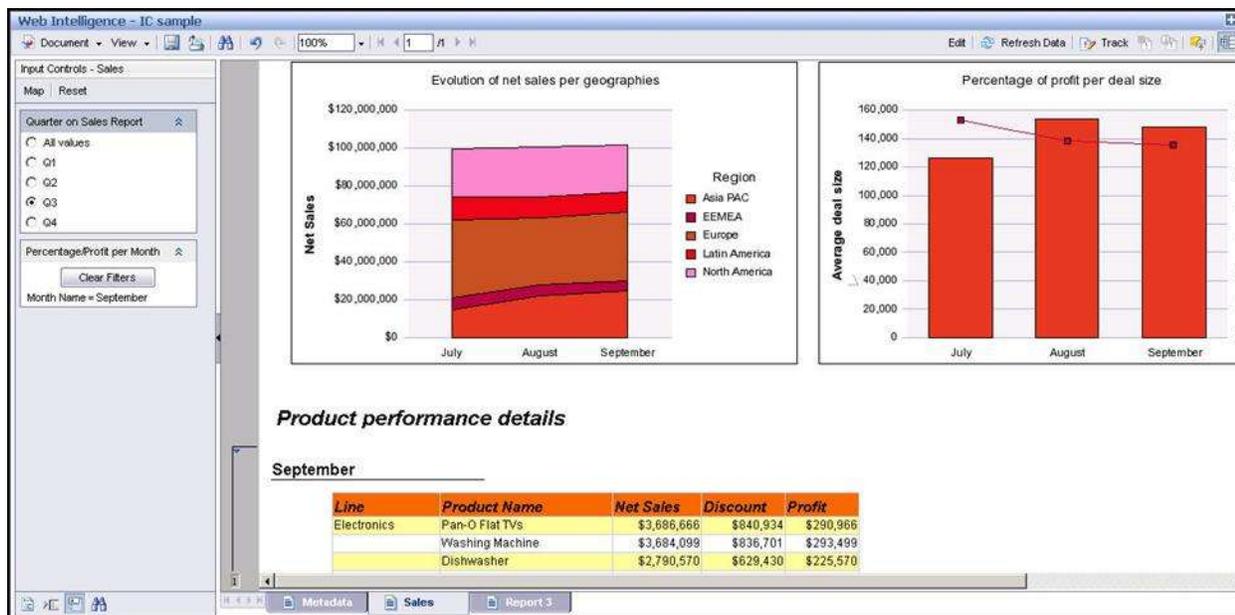
Input Controls

Performance Improvements

Query Drill

Query Drill is a way that Web Intelligence performance becomes comparatively superior to Desktop Intelligence performance. When using Desktop Intelligence to build reports for data analysis in drill mode, the query requires a scope of analysis containing sufficient details for any analysis to the lowest level. Usually these queries contain several hierarchies and several levels within each hierarchy. As a result, the data provider returned from the query contains a lot of rows and many columns. Building such a data provider requires high CPU resources on your data base server, and a heavy load on the network to transfer the data. Refreshing such a report takes a long time before the first table appears. Since you start on the highest level, the initial tables are small, containing only a few lines.

People often analyze the high level results and only drill down and analyze more detailed data if they encounter some exceptional, unexpected information on the high level. In many deployments, the vast majority of users never need to retrieve the lower levels in the hierarchies. In such cases, Desktop Intelligence documents needlessly retrieve all levels and consume most of the CPU and transfer resources.

Besides offering the same functionality and the same way of working, Web Intelligence also offers the "Query drill" option. This option can improve the performance of your report queries: when running the report, only the highest level in each hierarchy in the scope of analysis is retrieved from the data base and no further details are transferred. As most users only require the content defined by the author and exposed in the report, the query remains small and efficient. Still, those users, if they have the security rights, can interact with the content by rearranging columns and rows in the report, by adding calculations, or by viewing the data in different ways. On the occasions when you require a drill down to more detail not contained in the query, the drill action executes a new query to retrieve the additional level in the hierarchy or hierarchies drilled to and restricting the higher level(s) to the value(s) on which you drilled. When drilling across or drilling up, the data provider is again replaced by the result of a new query.

So, instead of requiring large "one-size fits all" reports that respond to all possible questions that any user may have, Web Intelligence reports can be much more efficient while still providing the ability to transparently reach out to more data as needed.

Input Controls

In Desktop Intelligence a report can contain a large set of tabs, each representing the data of the data providers in a slightly different way. The report viewer must navigate through all these tabs to find specific information.

The same information can be built in Web Intelligence through the combination of a limited number of tabs and input controls. Users do not need to scroll through a large set of tabs and have even more flexibility in analyzing the data.

Besides the benefits that were discussed in the previous topic on input controls there is an additional advantage: a faster refresh of the documents because fewer blocks are built.

"Unavailable" Functionality

Even though Desktop Intelligence and Web Intelligence workflows share far more commonality than differences, many long time Desktop Intelligence users argue that the Desktop Intelligence user experience is superior to that of Web Intelligence. In many cases, the Desktop Intelligence users' perceptions are strongly associated to the workflows and features that they know in Desktop Intelligence. Put another way, many Desktop Intelligence users tend to perceive the ideal user experience as that which supports the exact use cases that they have been responsible for delivering with their BI content. This is an important distinction. Desktop Intelligence's user experience will almost often be perceived as superior if looked at through the narrow lens of a few feature and workflow deltas.

Users can be prejudiced against the new tool. Usually this is based on experiences of the past, like "Web Intelligence version 2.0 was only a very light version of SAP Business Objects Full Client", or "I attended a demo of XI R2 and was told that the MultiCube function is not implemented". Once customers have built up a fixed, negative feeling, it is difficult to change their minds. It is important to stress that many of the features that didn't exist in XI R2 are now implemented in the current release.

It is normal human behavior that change generates obstruction. People want to continue using the tools that they know, tools with which they are familiar. Change means the unknown, and they are scared of the unknown. Good communication creates a lot of goodwill. Informing the users about the possibilities in Web Intelligence, showing demos of the new environment, helping them in the conversion process will help to make them feel confident and they will then understand why IT wants to migrate and convert. Happy initial users convince their colleagues to convert.

A specific group of users is convinced about the benefits of Web Intelligence, but they have objections to a web-based solution. In a large manufacturing company, users formulated the following requirements:
- Working with personal data
- Performing calculations on the report level and on the local machine instead of sending all calculation requests over the network to the server. They expected bad performance if calculations could not be executed on the local machine.
- Working offline
- Working on multiple documents at the same time, as within Desktop Intelligence.

When you examine the list of objections, almost all objections can be categorized into one of these groups:
- Resistance to a pure web-based solution
- The feature is already available or will be available soon
- A workaround offers a similar functionality.

Web Intelligence Rich Client

Web Intelligence Rich Client combines the best of Web Intelligence and Desktop Intelligence.

Web Intelligence Rich Client:
- Offers the same look and feel as the online Java Report Panel.
- Offers the same functionality as offered in the online Java Report Panel.
- Offers the independence provided by Desktop Intelligence.
- Is similar to Desktop Intelligence in terms of its offline capabilities, but extends these capabilities by the option to benefit from the Central Management Servers security.
- Enables, like Desktop Intelligence, reporting on personal data without the need of a universe.

Web Intelligence Rich Client users can open multiple documents and easily switch between these documents, as within Desktop Intelligence.

Connection Modes

When using Web Intelligence Rich Client, data analysis and reporting can be completely similar to the process with Web Intelligence: the full interaction and security from the Central Management Server is available, reports can be imported, reports can be saved on the central servers, etc.

Web Intelligence Rich Client users have a choice to work:
- Connected to the Central Management Server
- Disconnected, allowing to work anywhere with the data
- Standalone.

When working disconnected, users have the option to still benefit from the metadata in the Central Management Server. When the user works once in connected mode with the Central Management Server, a copy of the metadata and security definitions is created on the local platform. Even disconnected, this enables working with the full security definitions from the Central Management Server. This is not possible in Desktop Intelligence.

The combination of Web Intelligence with Web Intelligence Rich Client, offering the business users the choice of working offline or working online, while providing the same set of workflows, is a unique value. Choosing to work offline or online does not mean choosing between significant differences in capabilities. Since both options have the same look and feel, no additional training is required and users feel comfortable and confident switching between online and offline.

Personal Data

Unlike Web Intelligence, Web Intelligence Rich Client enables people to build reports on top of personal data without the creation of a universe first. This offers identical capabilities as within Desktop Intelligence. Additional added value is given by the capabilities of merged dimensions when the personal data are combined with other data providers, as explained before. These capabilities provide solutions without complex filtering, resulting in reduced maintenance efforts.
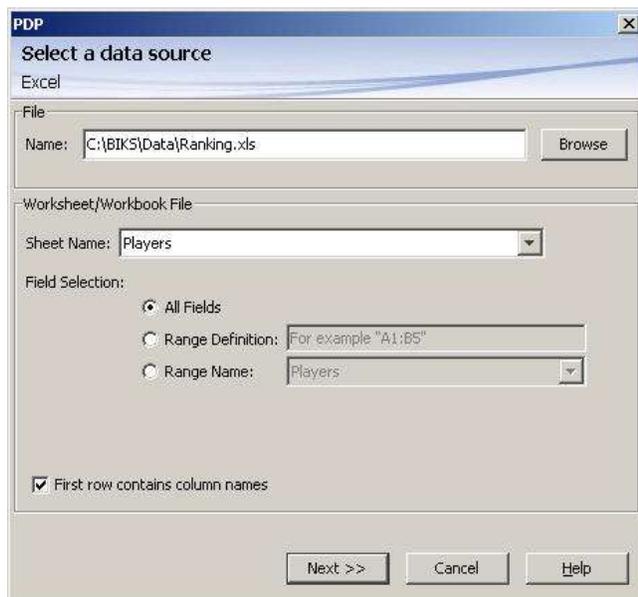
Personal Data in Web Intelligence Rich Client

Implemented Features

The list of so-called "missing" features that are already available, or will be available soon, includes:

- Graphical limitations: the graphical capabilities and layout in XI 3 or previous releases generate a lot of comments and complaints. SAP Business Objects plans charting revisions for the next major release. At the GBN conference in Dallas, users got a preview of the new charting engine, which was approved and accepted by the Web Intelligence Influence Council.
- The Fold option in sections, tables and table breaks is implemented in XI 3.1 SP2. This option offers the same functionality as the Outline feature in Desktop Intelligence.
- Building queries with conditions based on the result of other queries is implemented in XI 3.1 SP2. In the meantime, people can build queries with subqueries as a workaround. Notice however, that this is not a workaround when using different universes.
- Working on multiple reports at the same time is possible in Web Intelligence Rich Client.
- Working in standalone mode is possible in Web Intelligence Rich Client.
- The MultiCube function is replaced by the ForceMerge function, available in release XI 3.0.

Workarounds

For some functionality a workaround must be built. Some examples are listed below.

Grouping Icon

The functionality of the Grouping icon can be replaced by a defining a variable using an IF - THEN - ELSE formula.

Conditions with a Calculation in the Query Panel

A workaround is to define the condition on report level. This will generate the correct result, but will transfer more data into the data provider than Desktop Intelligence does.

Sort in the Query Panel

Generally people require a sorted table or graph, and they are not interested in a sorted data provider, which drops the need to have a sorted data provider. In exceptional cases, a sorted data provider is required, for instance when using the RowIndex function. A workaround is to use a measure in the query, which generates a GROUP BY clause and returns a sorted data provider.

Subtotals and Percentages in Ranking

Desktop Intelligence allows users to add subtotals and percentages in ranking through options in the Rank window. In Web Intelligence these options no longer exist, but the functionality can be added in a report block by adding new variables in the footer of the table. For instance, when a table contains a ranking calculated on the measure [Revenue], the subtotals can be added using:

```
Sum All   = NoFilter (Sum ([Revenue]))
Sum Other = NoFilter (Sum ([Revenue])) - Sum ([Revenue])
```

Hiding Columns

Depending on why people want to have a report block with a hidden column, different workarounds are available. Either the option "Avoid duplicate row aggregation" can be used, or working with an alerter will give the correct result.

Consider the table below. The table shows revenue by country, sorted by continent. Suppose you need to show this table, without the continent, keeping the sort on continent.

Country	Continent	Revenue
Serbia	Europe	14,644
Spain	Europe	13,206
Suisse	Europe	10,238
UK	Europe	2,294
USA	North America	11,499
Argentina	South America	2,506

Removing the continent from the table will also remove the sort. To build a correct result:
- Build a table containing [Country] and [Continent].
- Add a sort on [Continent].
- Define an alerter on [Continent].
- Specify an alerter condition that is always true, for instance:

  ```
  [Continent] is not null
  ```

- Specify in the alerter formula:

  ```
  = [Revenue]
  ```

- The correct table is built:

Country	Revenue
Serbia	14,644
Spain	13,206
Suisse	10,238
UK	2,294
USA	11,499
Argentina	2,506

The Data Manager Window

The Data Manager window combines several features, like the content of the data provider, the list of all data providers, the number of rows, limitations in number of rows, query execution time, etc. The window is not yet available in Web Intelligence but most information is already available.
- The Query Properties tab for instance contains already several items of the Data Manager window.
- A workaround for exporting the content of the data provider is to create a table with all rows and all columns and to save the report as ".csv" file.
- Opening the document in "Interactive View" mode in InfoView shows information about execution time and number of rows by selecting the "Data Summary" icon.

Free-hand SQL

A workaround is to build a universe with a derived table or to modify the SQL that is generated by the Query panel. SAP Business Objects has plans to implement free-hand SQL in the future.

Visual Basic Add-in

In Desktop Intelligence this is used for different purposes, for instance for scripting a schedule or for special calculations. Most of the functionality can be replaced by the standard scheduling in XI or is available through extension points in XI 3.1 SP2.

Templates

Several workarounds exist:
- Open a report with the required formatting and use "Save as …" to save the report under a new name.
- Modify the file "defaultconfig.xml" to change the default appearance of all reports.
- Create a default document. Open the document and change the data source in the Query Properties tab to any domain of objects.

Conditional Hide

Desktop Intelligence contains an option in the table properties to hide a block, based on a condition. This is not available in Web Intelligence.

To build this functionality in Web Intelligence:
- Build a variable containing the filter condition.
- Add a block filter or section filter based on the new variable.
- In specific situations you also need to modify the option "Show when empty", which is turned on by default.

More details and examples about workarounds can be found in the presentation "Drop your Objections to Web Intelligence", by Henri Theuwissen at the GBN conference in Dallas 2009. (Related Content section at the end of this document)

Migration and Conversion

Before starting the migration and conversion from Desktop Intelligence to Web Intelligence companies must consider two questions:

- Do we still need all existing reports?
- Should we rebuild some reports instead of converting them?

An immediate payback for the migration and conversion cost is the reduced maintenance cost due to:

- Fewer documents in the new environment
- Documents in the new environment with the same functionality or extended functionality as before but with less complexity.

Scope

The migration and conversion from Desktop Intelligence to Web Intelligence is simplified by the Report Conversion Tool. With every new release or new service pack, additional Desktop Intelligence features are implemented in Web Intelligence, closing the gap. The Report Conversion Tool is also enhanced with every new release or service pack to convert these features, resulting in a higher successful conversion ratio. The rate of successfully converted documents depends on the features that are used in a document. It is obvious that when a document contains features that are not yet available in Web Intelligence, the document cannot be converted. Feedback from several customers shows that in some companies, up to 90% of the existing reports are converted without any additional interaction. Most common converting problems are in the area of layout. The Report Conversion Tool assigns a status to each report ("Fully Converted", "Partially Converted", "Not Converted") and builds a log with information why a report was not completely converted.

The decision to migrate documents from Desktop Intelligence to Web Intelligence offers the ideal opportunity to undertake a full review of the existing documents. Most companies create an inventory of all existing documents and check whether the documents are still required.

Almost every company has documents that can be categorized as:

- Sleeping documents: documents that exist but have not been refreshed for a long time. Who works with outdated information?
- Semi-active documents: documents that are refreshed through a batch process, but nobody queries these documents.
- Redundant documents: documents containing information that is also provided in other documents.
- Active documents: documents that are refreshed and/or interacted with; documents that are modified or repurposed.

The migration and conversion effort can be shortened significantly by cleaning the set of corporate documents, and by migrating and converting only the "active" documents.

- A large international bank analyzed the documents in the repository before starting the migration and conversion process and decided that only 60% of the production documents should be converted.
- A company in the health care sector had to convert 80% of their documents.
- A company in the finance and insurance sector decided that the users were responsible for the migration and conversion of documents in their Inbox and personal folders. Less than 50% of the documents were converted.

Training

The training cost to teach Web Intelligence to existing Desktop Intelligence is very limited: Desktop Intelligence users already know 80 % of the tasks and concepts.

Most, if not all, successful conversion projects I have knowledge of, have training as part of their conversion plan. The training scope varies, and can range from a simple set of PowerPoint slides, downloadable from a corporate portal, to recorded or live training session. What they all have in common is early and on-going communication with the users who are affected by the change.

For more information on conversion training, please refer to the companion paper, titled "Managing the Conversion from Desktop Intelligence to Web Intelligence".

Convert or Rebuild

People will always have requests that cannot be answered in an easy way. They manage to build the desired result using workarounds or complex treatment. To illustrate this, consider the following example.

Request: "Show the products that add up to 75% of the total revenue".

Within Desktop Intelligence such a request is not easy: Ranking provides the possibility to show the top *n* products or the top frequency percentages but the above request has no clue of the number of products in the result. To build the solution in Desktop Intelligence, several steps are required:
- Define / calculate the overall total revenue.
- Calculate 75% of the total revenue (that is the reference point for the result).
- Sort the table on descending revenue.
- Calculate the running sum of revenue.
- Add a variable with value 1 or 0, indicating whether the running sum of revenue is below or above the 75% value.
- Due to the way ranking is implemented in Desktop Intelligence, ranking must be created on a dimension and not on a measure. The impact of this is that when defining a rank on the dimension "Product", based on the measure defined before (with the values 0 or 1), the result is not correct. To build a correct result, add a new dimension variable, derived from the measure "Revenue".
- Define ranking on this new dimension variable to show only the top 1.
- Hide the new dimension variable.

Within Web Intelligence, the Ranking window contains an option to build this request, no additional variables, or complex calculations are required. So the migration of a Desktop Intelligence report could be done as is (with the complex processing) or the Web Intelligence document can be re-created, using the new features. It will have a positive impact on the performance of the report refresh, but more important, the maintenance of the document is simplified.
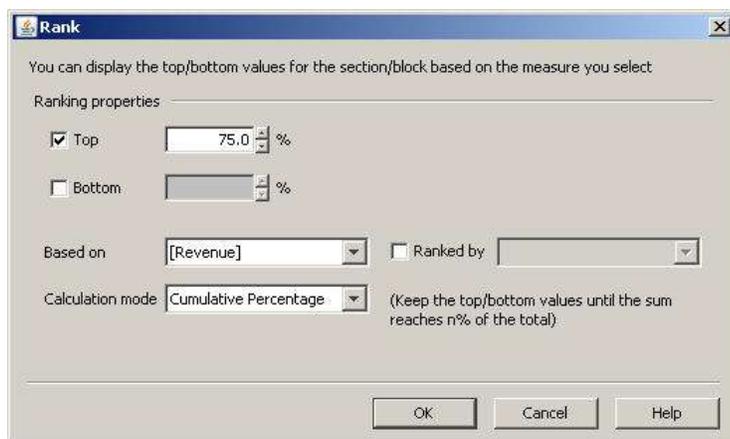
Ranking Cumulative Percentage

Desktop Intelligence reports with workarounds and complex calculations result in complex maintenance. A governmental company has a set of important reports created by an external consultant who left the company. Due to the complexity of the reports, nobody within the company dares to touch the report for any modification requests.

Related Content

SDN page for Web Intelligence

Global BusinessObjects Network (GBN)

GBN Influence Councils

Business Objects Board (BOB)

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