

# OTBI Reporting: Real World Applications

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# About Aspire Consulting

**2006**



Year Aspire was incorporated

**120+**



Consultants supporting our clients' initiatives



All resources are US based



**26.8**

Average years of experience for our consultants

**3.88**



GPA rating out of 4.0. Based on client feedback

**1,300+**



Projects completed since our inception

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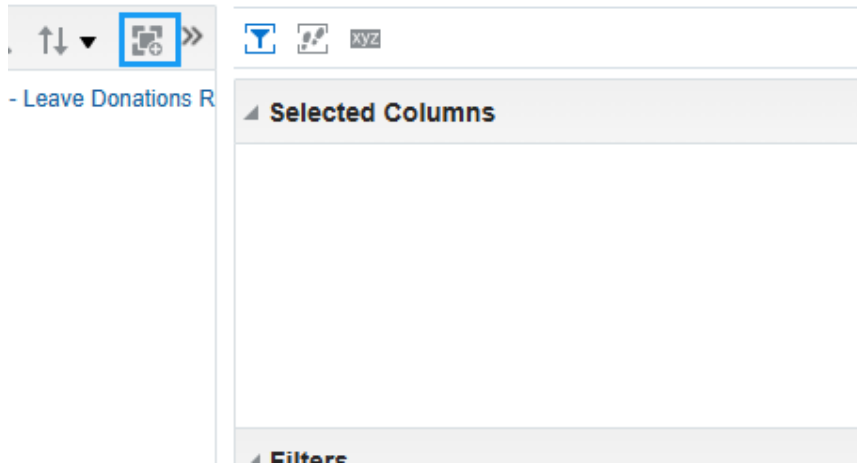
- Combining Subject Areas
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# Combining Subject Areas

- Subject Area

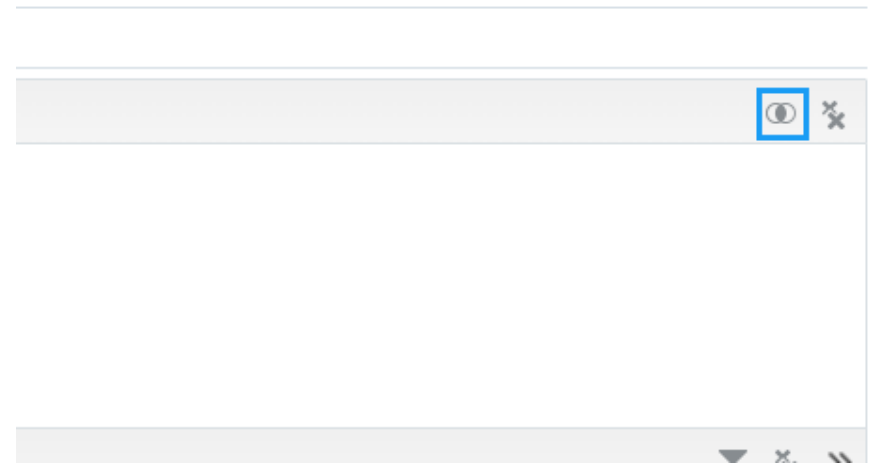
- Joining a Second Subject Area

Advanced



- Set Operations

- Overlaying a second Subject area
  - Union/Union All
  - Intersection
  - Minus



# Subject Area Join

- Similar to a normal join within SQL
- Oracle Automatically Joins the two
- Allows different data columns from each Subject Area

```
-- Connecting Multiple Subject Areas
```

```
select a.X, b.Y  
from Subject_Area1 a,  
      Subject_area2 b
```

```
where a.data_key = b.data_key
```

```
-- These joins are made automatically through OTBI
```

# Subject Area Join: When to Use

- Want data columns that aren't found in your subject area but share similar data folders.
- The way to add more data columns to your report

# Set Operations

- Two different data sets interacting with each other
- Helpful with manipulation data groups
- Columns must be the same data type

```
--Set Operations
```

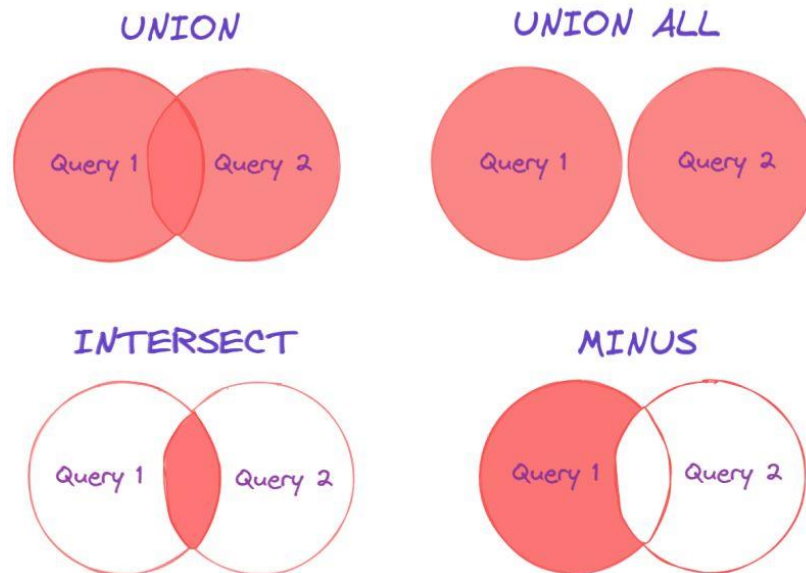
```
(Select a.X, a.Z  
from Subject_Area1 a)
```

```
union/union_all/Intersect/Minus
```

```
(Select b.X, b.Z  
from Subject_Area2 b)
```

# Difference Between Set Operations

- Union
  - Adds all data from both Subject Areas, but filters for any duplicates
- Union All
  - Adds all data from both Subject Areas
- Intersect
  - Shows only data both Subject Areas have in common
- Minus
  - Shows all Subject Area 1 that doesn't share commonality with Subject Area 2



# Set Operations: When to use it

- Whenever you want to manipulate data set that is returned
- Union/Union all
  - When you want to join based on different pre-built filters within Subject Area
- Intersect
  - When you want to find commonality between two subject areas
- Minus
  - When you want to filter out a subset of the data within a subject area

# Differences

## JOINS & SET OPERATIONS

Combine data in different ways.



### JOINS

Combine rows from two or more tables based on a related column.

Customers

CustomerID	Name
1	Alice
2	Bob
3	Carol

Orders

OrderID	CustomerID
101	1
102	1
103	2
104	4

INNER JOIN Result

CustomerID	Name	OrderID
1	Alice	101
1	Alice	102
2	Bob	103



Joins match related rows from different tables based on a condition.



### SET OPERATIONS

Combine the results of two or more queries (sets of rows). Columns must be compatible.

#### UNION

A	B	UNION
Value	Value	Value
1	3	1
2	4	2
3	5	3
		4
		5

All rows from A and B (duplicates removed).

#### INTERSECT

A	B	INTERSECT
Value	Value	Value
1	3	3
2	4	
3	5	

Rows that exist in both A and B.

#### MINUS (A MINUS B)

A	B	MINUS
Value	Value	Value
1	3	1
2	4	2
3	5	

Rows that exist in A but not in B.



Set operations work on complete result sets, not on related rows.

# Data Model Properties

## Data Model

- Properties
- Data Sets
- Event Triggers
- Flexfields
- List of Values
- Parameters
- Bursting

## Properties

Description

Default Data Source

Oracle DB Default Package

Query Time Out

Enable SQL Pruning  Skip Unused Data Set Query

Enable SQL session trace  SQL Trace Name

Enable XML Pruning

Backup Data Source  Enable Backup Connection

- Switch to Backup Data Source when Primary Data Source is unavailable
- Use Backup Data Source only

Enable CSV Output

Optimize Query Execution  Multithread Query Execution

XML Output Options  Include Parameter Tags

# Data Model Properties

- Default Data Source
  - Allows you to set a default Data source within your model
- Query Time Out
  - Allows you to customize the length the DM will run before timing out with a max of 5 hours.
- Enable SQL Pruning
  - Returns only columns used within your report template
    - Not applicable to PDF, Excel, and E- text Template types
- Enable XML Pruning
  - It removes unnecessary data elements and builds the xml Structure using only the data fields mapped to the layout fields.
    - Will prune XML datasets larger than 2GB.
    - Not applicable XPT Templates
- Enable CSV Output
  - Forces any report built on the DM to have an output of CSV only.
- Include Empty Tags for Null Elements
  - Allows for any data columns without data to still appear within the XML

# Reporting Properties

- Run Report Online
- Show Controls
- Allow Sharing Report Links
- Open Links in New Window
- Auto Run

## Advanced

Job Priority

Send Output as URL

- Save XML for Republishing
- Disable "Make Output Public" option
- Enable Bursting
- Ignore Email Domain Restrictions
- Report is Controlled by External Application  
Users cannot run or schedule report from catalog, can view history

Enterprise Scheduler Job Package Name

Enterprise Scheduler Job Definition Name

# Reporting Properties

- General
  - Auto Run
    - Tells the report to automatically run when opened or not
  - Disable “Make Output Public” Option
    - Forces the report to be private
- Formatting
  - Excel 2007 Output
    - Show grid lines
      - Toggle gridlines
    - Minimum column width/row height
      - Add a minimum width/height to all cells
    - Keep values in same column
      - Setting to true minimizes column merging, set true when using Table Auto Layout
    - Table Auto Layout
      - Specify conversion ratio for your ratio with the column's width
        - 1<sup>st</sup> number: Amount of points per character
        - 2<sup>nd</sup> number: Max points a column can be
    - Open Password
      - Allows password locking excel sheets

# Data Transfers Through the Reporting Process

- Auto-Width for Columns
  - How Auto-Width works within OTBI and BIP

Invoice	Voucher	Postive	Negative	Approval
JGA 2012155		#####	(\$98,346.33)	Y
JGA 2012163		#####	#####	Y
SS 201219046		#####	#####	Y
JGA 2012162		#####	(\$40,977.09)	Y
OD 2012114		#####	(\$86,940.81)	Y
DI 2012163		#####	(\$97,167.02)	Y
SS 201219015		#####	#####	Y
ERS-50001-1		\$305.51	(\$305.51)	Y
16027inv		\$163.16	(\$163.16)	Y
162034inv		\$830.01	(\$830.01)	Y

Invoice	Voucher	Postive	Negative	Approval
JGA 2012155		\$98,346.33	(\$98,346.33)	Y
JGA 2012163		\$118,014.72	(\$118,014.72)	Y
SS 201219046		\$191,773.92	(\$191,773.92)	Y
JGA 2012162		\$40,977.09	(\$40,977.09)	Y
OD 2012114		\$86,940.81	(\$86,940.81)	Y
DI 2012163		\$97,167.02	(\$97,167.02)	Y
SS 201219015		\$778,568.00	(\$778,568.00)	Y
ERS-50001-1		\$305.51	(\$305.51)	Y
16027inv		\$163.16	(\$163.16)	Y
162034inv		\$830.01	(\$830.01)	Y

# Data Transfers Through the Reporting Process

- Dates
  - Differences between Oracle and Microsoft dates
  - Look into Delivered reports how they do excel

Control	Control Formatted	Control Manipulated (General)	Control Manipulated (Date)
2012-01-05	1/0/00	40913	1/5/2012
2012-01-19	1/0/00	40927	1/19/2012
2012-01-24	1/0/00	40932	1/24/2012
2012-02-04	1/0/00	40943	2/4/2012
2012-02-17	1/0/00	40956	2/17/2012
2012-02-25	1/0/00	40964	2/25/2012
2012-03-04	1/0/00	40972	3/4/2012

Char Unformatted	Char Formatted	Char Manipulated (General)	Char Manipulated (Date)
1/0/1900	01/05/2012	#VALUE!	#VALUE!
1/0/1900	01/19/2012	#VALUE!	#VALUE!
1/0/1900	01/24/2012	#VALUE!	#VALUE!
1/0/1900	02/04/2012	#VALUE!	#VALUE!
1/0/1900	02/17/2012	#VALUE!	#VALUE!
1/0/1900	02/25/2012	#VALUE!	#VALUE!
1/0/1900	03/04/2012	#VALUE!	#VALUE!

# Automation with Dates for Parameters

 DATE VARIABLE	DESCRIPTION
<code>{ \$SYSDATE() }</code>	Current date, the system date of the server on which Publisher is running.
<code>{ \$FIRST_DAY_OF_MONTH() }</code>	First day of the current month
<code>{ \$LAST_DAY_OF_MONTH() }</code>	Last day of the current month
<code>{ \$FIRST_DAY_OF_YEAR() }</code>	First day of the current year
<code>{ \$LAST_DAY_OF_YEAR() }</code>	Last day of the current year



The date function calls in the parameter values aren't evaluated until the report job is processed by the Scheduler.



## DATE ARITHMETIC EXAMPLES

You can also enter expressions using the plus sign (+) and minus sign (-) to add or subtract days as follows:

`{ $SYSDATE()+1$ }`

→ Next day


`{ $SYSDATE()-7$ }`

→ 7 days prior

# Dynamic Parameters

## 1 COMPANY

Select a company.




**Company**

(Select a value) ▼

- Company A
- Company B
- Company C

## 2 COST CENTER

Cost centers update based on the selected company.




**Cost Center**

(Select a value) ▼

- CC-100
- CC-200
- CC-300

## 3 ACCOUNT

Accounts update based on the selected cost center.



**Account**

(Select a value) ▼

- 6000 - Salaries
- 6100 - Benefits
- 6200 - Supplies

### How it works

Your selection in Company determines the available Cost Centers.  
Your selection in Cost Center determines the available Accounts.

# Aspire Training



**ASPIRE**  
CONSULTING

Transform your organizations **skills**, with Oracle Cloud Reporting and Analytics training

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- BI Publisher
- Financial Reporting Studio
- Narrative Reporting

Interactive Online & In-Person Training | Expert Instructors | All Skill Levels

- Oracle Reports Training
  - Highly Customizable for your business
  - Specialize the training for HCM/FIN/CRM or all
  - Includes all aspects of reporting within Oracle

# Questions & Contacts



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