Advanced Reporting – Guide to Date Options

Descriptions and examples of the Date Options available in Advanced Reporting

SAP

Date Options in Advanced Reporting

The Date Options function in Advanced Reporting allows a user to set specific time spans in which to show results. This guide goes through in detail what each of these options are and how they can affect the results in an Advanced Reporting query.

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Date Fields – Default Effective Dates

Most tables in Employee Central contain data that can change over time and as such, are "effective dated". This means that every record will have a start date and an end date. Current records can be identified by an end date of 31st December 9999. When data changes in the table, a new record is established for the employee or object with the previous records dates updated accordingly.

All Advanced Reporting queries will use these effective dates by default – unless otherwise specified by the query designer.

History of Job Information

History

| 12/31/2013 | Take Action ▾ |
| Return From Disability | |

| 07/01/2013 |
| Health Reasons |

| 01/01/2013 |
| Sabbatical Leave |

| 10/28/2012 |
| New Hire |

Employee "jkim" Job Information data, changing over time – from hire through leave and returning to active employment

User ID	Effective Start Date	Effective End Date	Employment Status (Label)	Event Reason Icode (Event Name)	
jkim	10/28/2012	12/31/2012	Active	New Hire	
jkim	1/1/2013	6/30/2013	Active	Sabbatical Leave	
jkim	7/1/2013	12/30/2013	Unpaid Leave	Health Reasons	
jkim	12/31/2013	12/31/9999	Active	Return From Disability	

Date Fields – No Effective Dates

There are a small number of tables in Employee Central that are not effective dated and will contain a single record per employee. The most common examples of these tables are the Employment Information and Biographical (or "Person") Information tables. These tables contain information that does not change (eg: Birth Date) and any modifications to information in these records simply overwrites the existing record.

Tables like these can be identified either by the lack of "Effective Start / End Dates" fields in them – or pulling the table into a new query and noting that the Date Options will default to "Show All", rather than "Current Date".

Biographical Information   Edit

Person Id	jkim
Date Of Birth	05/12/1977
Country Of Birth	United States
Date of Death	

Employee "jkim" Biographical Information data, which doesn't change over time. Any updates simply overwrite the existing record.

User ID	Person ID	Date Of Birth	Country Of Birth	Country Of Birth (Label)	Date Of Death	Last Modified Date
jkim	814	5/12/1977	USA	United States		12/13/2012

Date Fields – Custom Dates

Many tables in Employee Central also contain other dates which may be used in the filters in Date Options.

Users who wish to use these dates (rather than the default "Effective Dates", can choose the "Use Custom Columns" option in the Date Options dialog, then select the date column to be used from the "Start/End Date Column" drop down list.

Date Options Tab

There are a number of different options and date settings that can be applied to the query with Date Options:

Driving Table: shows the "controlling" table in the query, that other tables (if applicable) will use as a reference for their date settings.

Date Type: choose whether the query should return a single date or date range.

Date Range: set the From and To dates that will be applied to the query.

As Of Date: (not displayed) set the single date that will be applied to the query.

Use Custom Columns: option to override the default Effective Date columns and use another date column available in the table.

Selectable At Runtime: allow the report user / consumer to change the query dates when they run the report (note this does not allow report users to change the Date Type).

Related Table Options: set the default dates for all other tables in the query, this option is only used if there are no table-specific overrides set.

Please refer to the Date Types, As Of Dates and Date Ranges example slides for more detail on these options.

Overrides (Advanced) Tab

The Overrides tab allows you to set table specific date options on other tables in the query:

Clicking **Edit** on a table will show a **Date Type** selector for that table. Choose a date type and click **Set** to apply it to the query.

The list of tables used in the query. Click **Edit** to set date options on the selected table, or **Clear** to remove previously set options.

Date Types

Available Date Types are:

Show All: Shows all available data with no restrictions on the date of the data

Current Date: Show the data that is applicable "today". Note that "today" is a moving target. Eg: if today is July 10th, it will show records that were current on July 10th. On July 11th, the query will show records current for July 11th.

As Of Date: Shows the records that are applicable on the selected date.

Date Range (On Start Date): Shows the records that **started** within the selected date range.

Date Range (Validity): Shows the records that either **started** or **ended** within the selected date range.

Driving Table Start Date (*note this option is only available on Related Tables):* Shows the records that were applicable on the Start Date on the Driving Table.

As Of Dates

As Of Dates can be static (eg: 1st July 2014) or dynamic (eg: First Day of the Month). Setting a dynamic As Of Date, means that the report will take into account the current day and apply the dynamic As Of Date based on where in the calendar today is.

- For the purposes of these dynamic As Of Dates, a week begins on a Monday and ends on a Sunday. Quarters are considered to be calendar year quarters.

- Last Successful Run Date is used in conjunction with Report Distributor and will return results for the query since the last time the report was distributed

As Of Dates (cont)

For example, if todays date is Friday 15th August 2014 then:

	First Day	Last Day
First/Last Day Last Week	4th August 2014	10th August 2014
First/Last Day Current Week	11th August 2014	17th August 2014
First/Last Day Next Week	18th August 2014	24th August 2014
First/Last Day Last Month	1st July 2014	30th July 2014
First/Last Day Current Month	1st August 2014	31st August 2014
First/Last Day Last Quarter	1st April 2014	30th June 2014
First/Last Day Current Quarter	1st July 2014	30th September 2014

Date Ranges

Date Ranges can be static (eg: 1st July 2014 to 8th July 2014) or dynamic (eg: Current Month). Setting a dynamic Date Range, means that the report will take into account the current day and apply the dynamic Date Range based on where in the calendar today is.

- For the purposes of these dynamic Date Ranges, a year begins on January 1st and ends on December 31st. Quarters are considered to be calendar year quarters.

- Current Year/Month/Quarter To Date includes the days in the current year/month/quarter up to and including today (ie: it will not include future days in the year/month/quarter).

- Current Year/Month/Quarter To Go includes the days from today, until the last day in the year/month/quarter (ie: it will include today and future days, no previous days).

Date Ranges (cont)

For example, if todays date is Friday 15th August 2014 then:

	Begins	Ends
Current Month	1st August 2014	31st August 2014
Current Month to Date	1st August 2014	15th August 2014
Current Quarter	1st July 2014	30th September 2014
Current Quarter to Date	1st July 2014	15th August 2014
Current Year	1st January 2014	31st December 2014
Current Year to Date	1st January 2014	15th August 2014
Last Month	1st July 2014	31st July 2014
Last Quarter	1st April 2014	30th June 2014
Last Year	1st January 2013	31st December 2013
Next Month	1st September 2014	30th September 2014
Next Quarter	1st October 2014	31st December 2014
Next Year	1st January 2015	31st December 2015
Current Month to Go	15th August 2014	31st August 2014
Current Quarter to Go	15th August 2014	30th September 2014
Current Year to Go	15th August 2014	31st December 2014

Effects of Using Date Options

Examples of the different results obtained, as determined by the Date Options set on the query. We will now look at the effect of different Date Options as set on single table queries and queries with multiple tables.

Default Behaviour – Current Date or Show All

The first table pulled into a new query in Advanced Reporting will become the "Driving" (eg: the "controlling") table and default to the "Current Date" Date Option (for effective dated tables) or "Show All" Date Option (for table with no effective dates).

Employee "mbarista1" Job Information data. By default the query will return the most current record – as identified by "today" being between her Effective Start and Effective End Dates:

zSF Test - Date Options

User ID	Effective Start Date	Effective End Date	Employment Status (Label)	Supervisor	Department (Name)	FTE
mbarista1	2/1/2010	12/31/9999	Active	dcortez1	Talent Management	1.0

Employee "mbarista1" Compensation data. Note that here, the employee can have multiple Pay Components current as at "today", hence the multiple records:

User ID	Effective Start Date	Effective End Date	Frequency (Name)	Pay Component (Name)	Amount
mbarista1	5/1/2006	12/31/9999	Annual	Base Salary	165000.00
mbarista1	5/1/2006	12/31/9999	Annual	Capital Accumulation Benefits	15000.00
mbarista1	5/1/2006	12/31/9999	Annual	Bonus	15000.00

Note queries shown are targeted to a single employee for display purposes.

Show All Records

To display all records for this employee, simply change the Date Options to "Show All" (note this Date Option is the default for tables that are not effective dated):

Employee "mhoff1" all Compensation data. These records will include all Compensation pay components since the employee was hired:

User ID	Effective Start Date	Effective End Date	Frequency (Name)	Pay Component (Name)	Amount
mhoff1	11/1/2008	12/31/2009	Annual	Base Salary	130000.00
mhoff1	1/1/2010	2/1/2011	Annual	Base Salary	138500.00
mhoff1	2/2/2011	5/22/2011	Annual	Base Salary	142000.00
mhoff1	5/23/2011	4/15/2012	Annual	Base Salary	150000.00
mhoff1	5/23/2011	4/15/2012	Annual	Performance Bonus	30000.00
mhoff1	4/16/2012	12/31/9999	Annual	Base Salary	162500.00
mhoff1	4/16/2012	12/31/9999	Annual	Performance Bonus	30000.00

Note queries shown are targeted to a single employee for display purposes.

As Of Date

To display records that were current on a specific date, choose **As Of Date**:

*Setting an **As Of Date** to 1st January 2012, will return records where 1st January 2012 is between the Effective Start and Effective End Dates.*

Note queries shown are targeted to a single employee for display purposes.

Date Range (On Start Date)

To display records that started in a certain date range, select **Date Range (On Start Date)**:

*Setting a **Date Range (On Start Date)** from 1st January 2011 to 31st December 2011, will display records where the Effective Start Date is within this date range:*

Note queries shown are targeted to a single employee for display purposes.

Date Range (Validity)

To display records that started or ended in a certain date range, select **Date Range (Validity)**:

*Setting a **Date Range (Validity)** from 1ˢᵗ January 2011 to 31ˢᵗ December 2011, will display records that started (Effective Start Date) or ended (Effective End Date) within this date range:*

Note queries shown are targeted to a single employee for display purposes.

Multi Table Queries

When a query has more than one table, the first table pulled into the query will become the driving (or controlling) table – identified by the green outline in Advanced View. Subsequent tables will (by default) show records for the Current Date:

Note queries shown are targeted to a single employee for display purposes.

Multi Table Queries

When a query has more than one table, the first table pulled into the query will become the driving (or controlling) table – identified by the green outline in Advanced View. Subsequent tables will (by default) show records for the Current Date:

Note queries shown are targeted to a single employee for display purposes.

Effects on Results – Current Date

Use the default Current Date option to see the records that are applicable today:

Here we have a query on the Job Information table and the Compensation table, both showing "current date".
When these tables are used in the same query, will "match" the current date Job record with the current date
Compensation records.

User ID	Effective Start Date	Effective End Date	Employment Status (Label)	FTE
mhoff1	8/25/2014	12/31/9999	Active	1.0

User ID	Effective Start Date	Effective End Date	Frequency (Name)	Pay Component (Name)	Amount
mhoff1	4/16/2012	12/31/9999	Annual	Base Salary	162500.00
mhoff1	4/16/2012	12/31/9999	Annual	Performance Bonus	30000.00

zSF Test - Date Options

User ID	Effective Start Date	Effective End Date	Employment Status (Label)	FTE	Pay Component (Name)	Effective Start Date	Effective End Date	Frequency (Name)	Amount
mhoff1	8/25/2014	12/31/9999	Active	1.0	Base Salary	4/16/2012	12/31/9999	Annual	162500.00
mhoff1	8/25/2014	12/31/9999	Active	1.0	Performance Bonus	4/16/2012	12/31/9999	Annual	30000.00

Note queries shown are targeted to a single employee for display purposes.

Effects on Results – Show All + Current Date

Use Show All (or a Date Range) on the driving table to retrieve more results from the driving table and Current Date on the related tables to only see the current related table record:

Here we have a query on the Job Information table showing Job records for 2010/2011, with only the current date record/s from the Compensation information table:

User ID	Effective Start Date	Effective End Date	Employment Status (Label)	FTE
mhoff1	1/1/2010	2/1/2011	Active	1.0
mhoff1	2/2/2011	5/22/2011	Active	1.0
mhoff1	5/23/2011	12/31/2011	Active	1.0

User ID	Effective Start Date	Effective End Date	Frequency (Name)	Pay Component (Name)	Amount
mhoff1	4/16/2012	12/31/9999	Annual	Base Salary	162500.00
mhoff1	4/16/2012	12/31/9999	Annual	Performance Bonus	30000.00

User ID	Effective Start Date	Effective End Date	Employment Status (Label)	FTE	Pay Component (Name)	Effective Start Date	Effective End Date	Frequency (Name)	Amount
mhoff1	1/1/2010	2/1/2011	Active	1.0	Base Salary	4/16/2012	12/31/9999	Annual	162500.00
mhoff1	1/1/2010	2/1/2011	Active	1.0	Performance Bonus	4/16/2012	12/31/9999	Annual	30000.00
mhoff1	2/2/2011	5/22/2011	Active	1.0	Base Salary	4/16/2012	12/31/9999	Annual	162500.00
mhoff1	2/2/2011	5/22/2011	Active	1.0	Performance Bonus	4/16/2012	12/31/9999	Annual	30000.00
mhoff1	5/23/2011	12/31/2011	Active	1.0	Base Salary	4/16/2012	12/31/9999	Annual	162500.00
mhoff1	5/23/2011	12/31/2011	Active	1.0	Performance Bonus	4/16/2012	12/31/9999	Annual	30000.00

Note queries shown are targeted to a single employee for display purposes.

Effects on Results – Driving Table Start Date

The Driving Table Start Date option is only available on related tables. This option will retrieve the record that is applicable at the Start Date of the driving table:

Here we have a query on the Job Information table showing Job records for 2010/2011, with only the record/s from the Compensation information table that are applicable at the Start Date of the Job record:

User ID	Effective Start Date	Effective End Date	Employment Status (Label)	FTE
mhoff1	1/1/2010	2/1/2011	Active	1.0
mhoff1	2/2/2011	5/22/2011	Active	1.0
mhoff1	5/23/2011	12/31/2011	Active	1.0

User ID	Effective Start Date	Effective End Date	Frequency (Name)	Pay Component (Name)	Amount
mhoff1	11/1/2008	12/31/2009	Annual	Base Salary	130000.00
mhoff1	1/1/2010	2/1/2011	Annual	Base Salary	138500.00
mhoff1	2/2/2011	5/22/2011	Annual	Base Salary	142000.00
mhoff1	5/23/2011	4/15/2012	Annual	Base Salary	150000.00
mhoff1	5/23/2011	4/15/2012	Annual	Performance Bonus	30000.00
mhoff1	4/16/2012	12/31/9999	Annual	Base Salary	162500.00
mhoff1	4/16/2012	12/31/9999	Annual	Performance Bonus	30000.00

User ID	Effective Start Date	Effective End Date	Employment Status (Label)	FTE	Pay Component (Name)	Effective Start Date	Effective End Date	Frequency (Name)	Amount
mhoff1	1/1/2010	2/1/2011	Active	1.0	Base Salary	1/1/2010	2/1/2011	Annual	138500.00
mhoff1	2/2/2011	5/22/2011	Active	1.0	Base Salary	2/2/2011	5/22/2011	Annual	142000.00
mhoff1	5/23/2011	12/31/2011	Active	1.0	Base Salary	5/23/2011	4/15/2012	Annual	150000.00
mhoff1	5/23/2011	12/31/2011	Active	1.0	Performance Bonus	5/23/2011	4/15/2012	Annual	30000.00

Note queries shown are targeted to a single employee for display purposes.

Thank you