Date & Time - Category for date and time manipulation functions

Name ▲	Description	Return Type	Parameters			
			Name	Description	Type	Requir.
DATE	Creates a date object using the specified information on day, month and year.	java.util.Date	Year	The year of the new date	java.lang.Integer	Y
			Month	The month of the new date	java.lang.Integer	Y
			Day of month	The day of the new date	java.lang.Integer	Y
DATEFORMAT	Format the specified date object using the chosen format pattern.	java.lang.String	Selected date	The date to format	java.util.Date	Y
			Format pattern	Format pattern to apply when printing the date	java.lang.String	Y
DATERANGE	Allows to create a JasperReports DateRange instance starting from either a String expression or a Date instance.	net.sf.jasperreports.types.date.DateRange	Date range details	The date range information	java.lang.Object	Y
DATEVALUE	Gives the corresponding numeric value (long milliseconds) for a specified date object.	java.lang.Long	Date object	The object representing the date	java.lang.Object	Y
DAY	Returns the day of a given date. Date object can be a String, long value (milliseconds) or Date instance itself.	java.lang.Integer	Selected date	The object representing the date	java.lang.Object	Y
DAYS	Returns the number of days between two dates.	java.lang.Integer	Start date	The initial date	java.lang.Object	Y
			End date	The end date	java.lang.Object	Y
DAYSINMONTH	Returns the number of days in a month.	java.lang.Integer	Selected date	The date to check	java.lang.Object	Y
DAYSINYEAR	Returns the number of days in a year.	java.lang.Integer	Selected date	The date to check	java.lang.Object	Y
EDATE	Returns a date a number of months away.	java.util.Date	Selected date	The object representing the date	java.lang.Object	Y
			Months	The number of months after the given date	java.lang.Integer	Y
HOUR	Returns the hour (0-23) of the day for a given date. Date object can be a String, long value (milliseconds) or Date instance itself.	java.lang.Integer	Selected date	The object representing the date	java.lang.Object	Y
ISLEAPYEAR	Checks if the given date occurs in a leap year.	java.lang.Boolean	Selected date	The date to check	java.lang.Object	Y
MINUTE	Returns the minute (0-59) of the hour for a given date. Date object can be a String, long value (milliseconds) or Date instance itself.	java.lang.Integer	Selected date	The object representing the date	java.lang.Object	Y
MONTH	Returns the month of a given date. Date object can be a String, long value (milliseconds) or Date instance itself.	java.lang.Integer	Selected date	The object representing the date	java.lang.Object	Y

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MONTHS	Returns the number of months between two dates.	java.lang.Integer	Start date	The initial date	java.lang.Object	Y
			End date	The end date	java.lang.Object	Y
NETWORKDAYS	Returns the number of working days between two dates (inclusive). Saturday and Sunday are not considered working days.	java.lang.Integer	Start date	The initial date	java.lang.Object	Y
			End date	The end date	java.lang.Object	Y
NOW	Returns the current instant as date object	java.util.Date				
SECOND	Returns the second (0-59) of the minute for a given date. Date object can be a String, long value (milliseconds) or Date instance itself.	java.lang.Integer	Selected date	The object representing the date	java.lang.Object	Y
TIME	Returns a text string representing a time value (hours, seconds and minutes). If no specific pattern is provided a default formatter is used.	java.lang.String	Hours	The hours for the new time value	java.lang.Integer	Y
			Minutes	The minutes for the new time value	java.lang.Integer	Y
			Seconds	The seconds for the new time value	java.lang.Integer	Y
			Format pattern	The pattern to format the time value	java.lang.String	
TODAY	Returns the current date as date object	java.util.Date				
WEEKDAY	Returns the day of the week for a given date. Date object can be a String, long value (milliseconds) or Date instance itself.	java.lang.Integer	Selected date	The object representing the date	java.lang.Object	Y
			Sunday is first day	Boolean flag to decide if Sunday should be considered as first day. Default is not	java.lang.Boolean	
WEEKNUM	Returns the week number of a given date.	java.lang.Integer	Selected date	The date to check	java.lang.Object	Y
WEEKS	Returns the number of weeks between two dates.	java.lang.Integer	Start date	The initial date	java.lang.Object	Y
			End date	The end date	java.lang.Object	Y
WEEKSINYEAR	Returns the number of weeks in a year.	java.lang.Integer	Selected date	The date to check	java.lang.Object	Y
WORKDAY	Returns a date a number of workdays away. Saturday and Sundays are not considered working days.	java.util.Date	Selected date	The object representing the date	java.lang.Object	Y
			Working days	The number of days after the given date	java.lang.Integer	Y
YEAR	Returns the year of a given date. Date object can be a String, long value (milliseconds) or Date instance itself.	java.lang.Integer	Selected date	The object representing the date	java.lang.Object	Y
YEARS	Returns the number of years between two dates.	java.lang.Integer	Start date	The initial date	java.lang.Object	Y
			End date	The end date	java.lang.Object	Y

Logical - Category for logical operations functions

Name ▲	Description	Return Type	Parameters			
			Name	Description	Type	Requir.
AND	Returns true if all arguments are considered true, false otherwise.	java.lang.Boolean	Argument	A boolean expression or value	[Ljava.lang.Boolean;	Y
EQUALS	Checks if the two specified objects are equal.	java.lang.Boolean	Object 1	The first element to be compared	java.lang.Object	Y
			Object 2	The second element to be compared	java.lang.Object	Y
FALSE	Returns the logical value FALSE.	java.lang.Boolean				
IF	Returns one of two values, depending on a test condition.	java.lang.Object	Test condition	An expression returning a boolean value	java.lang.Boolean	Y
			Value 1 (true)	The value returned when the test is true	java.lang.Object	Y
			Value 2 (false)	The value returned when the test is false	java.lang.Object	Y
NOT	Returns the negation of the specified boolean expression.	java.lang.Boolean	Argument	A boolean expression or value	java.lang.Boolean	Y
OR	Returns true if any of the arguments is considered true, false otherwise.	java.lang.Boolean	Argument	A boolean expression or value	[Ljava.lang.Boolean;	Y
TRUE	Returns the logical value TRUE.	java.lang.Boolean				

Numeric / Mathematical - Category for mathematical operations functions

Name ▲	Description	Return Type	Parameters			
			Name	Description	Type	Requir.
ABS	Returns the absolute value of a number.	java.lang.Number	Number	The number to check	java.lang.Number	Y
CEIL	Returns the smallest value that is greater than or equal to the argument and is equal to a mathematical integer.	java.lang.Double	Number	Value	java.lang.Number	Y
FACT	Returns the factorial of a number.	java.lang.Long	Integer number	The argument	java.lang.Integer	Y
FLOOR	Returns the largest value that is less than or equal to the argument and is equal to a mathematical integer.	java.lang.Double	Number	Value	java.lang.Number	Y
ISEVEN	Checks if a number is even. If a non-integer number is specified, any digits after the decimal point are ignored.	java.lang.Boolean	Number	The number to check	java.lang.Number	Y
ISODD	Checks if a number is odd. If a non-integer number is specified, any digits after the decimal point are ignored.	java.lang.Boolean	Number	The number to check	java.lang.Number	Y
MAX	Returns the maximum of a list of numeric values.	java.lang.Number	Number	Number to compare	[Ljava.lang.Number;	Y
MIN	Returns the minimum of a list of numeric values.	java.lang.Number	Number	Number to compare	[Ljava.lang.Number;	Y
PRODUCT	Returns the product of a list of numbers.	java.lang.Number	Number	Argument	[Ljava.lang.Number;	Y
RAND	Returns a random number between 0.0 and 1.0.	java.lang.Double				
RANDBETWEEN	Returns an Integer random number between bottom and top range (both inclusive).	java.lang.Integer	Bottom range	Integer number for the bottom range	java.lang.Integer	Y
			Top range	Integer number for the top range	java.lang.Integer	Y
SIGN	Returns the sign of a number.	java.lang.Integer	Number	The number to check	java.lang.Number	Y
SQRT	Returns the positive square root of a number. The number must be positive.	java.lang.Number	Positive number	Argument	java.lang.Number	Y
SUM	Returns the sum of a list of numbers.	java.lang.Number	Number	Addendum	[Ljava.lang.Number;	Y

Text - Category for text/string manipulation functions

Name ▲	Description	Return Type	Parameters			
			Name	Description	Type	Requir.
BASE	Returns a text representation of a number, in a specified base radix.	java.lang.String	Number	The positive integer number to convert	java.lang.Integer	Y
			Radix	The base radix, an integer between 2 and 36	java.lang.Integer	Y
			Minimum length		java.lang.Integer	
CHAR	Returns a single text character, given a character code.	java.lang.String	Char code	The character code, in the range 1-255	java.lang.Integer	Y
CLEAN	Returns a new text string without non-printable characters.	java.lang.String	Text	The text to be cleaned	java.lang.String	Y
CODE	Returns the numeric code (0-255) for the first character in a string.	java.lang.Integer	Text	The string containing the character to convert	java.lang.String	Y
CONCATENATE	Combines a list of strings into a single one.	java.lang.String	Text	Argument	[Ljava.lang.String;	Y
DOUBLE_VALUE	Returns a Double number representing the given text string.	java.lang.Double	Number (as text)	The input text string representing a number	java.lang.String	Y
EXACT	Returns TRUE if the two text specified are exactly the same (case sensitive compare).	java.lang.Boolean	Text 1	The first text to compare	java.lang.String	Y
			Text 2	The second text to compare	java.lang.String	Y
FIND	Returns the character position of a string inside another text. If the text is not found then -1 is returned.	java.lang.Integer	Find text	The text to look into	java.lang.String	Y
			Text to search	The text string to search	java.lang.String	Y
			Start position	The position from which the search should start	java.lang.Integer	
FIXED	Returns the text representing number with the specified decimal places.	java.lang.String	Number	The number to print out	java.lang.Number	Y
			Decimals	The number of decimal places	java.lang.Integer	Y
			Omit separators	The flag to specify if the thousands separators should be included or not	java.lang.Boolean	
FLOAT_VALUE	Returns a Float number representing the given text string.	java.lang.Float	Number (as text)	The input text string representing a number	java.lang.String	Y
INTEGER_VALUE	Returns an Integer number representing the given text string.	java.lang.Integer	Number (as text)	The input text string representing a number	java.lang.String	Y
LEFT	Returns the specified number of characters (1 by default) from the left side of the input text.	java.lang.String	Text	The input text	java.lang.String	Y
			Characters num	The number of characters. Default (not specified) is 1	java.lang.Integer	
LEN	Returns the length of the specified text string.	java.lang.Integer	Text	The input text string	java.lang.String	Y
LONG_VALUE	Returns a Long number representing the given text string.	java.lang.Long	Number (as text)	The input text string representing a number	java.lang.String	Y

Text - Category for text/string manipulation functions

Name ▲	Description	Return Type	Parameters			
			Name	Description	Type	Requir.
LOWER	Performs the lower case conversion of the specified text string.	java.lang.String	Text	The input text string	java.lang.String	Y
LTRIM	Clear a string, removing leading whitespaces.	java.lang.String	Text	The text string to be trimmed	java.lang.String	Y
MID	Returns the text from the middle of a text string.	java.lang.String	Text	The input text	java.lang.String	Y
			Start	The initial position to extract the text	java.lang.Integer	Y
			Characters num	The number of characters	java.lang.Integer	
PROPER	Capitalizes each words of the specified text. The remaining parts of words are in lowercase.	java.lang.String	Text	The input text	java.lang.String	Y
REPLACE	Replaces parts of a text string with a different one. Starting from a specified position, removes a certain number of characters and then insert the new text.	java.lang.String	Original Text	The input text to modify	java.lang.String	Y
			Start position	The number of characters. Default (not specified) is 1	java.lang.Integer	Y
			Characters num	The number of characters to remove	java.lang.Integer	Y
			New Text	The text that will replace the old one	java.lang.String	Y
REPT	Replicates an input text string for a specified number of times.	java.lang.String	Original Text	The input text to replicate	java.lang.String	Y
			Number of copies	The needed number of copies	java.lang.Integer	Y
RIGHT	Returns the specified number of characters (1 by default) from the right side of the input text.	java.lang.String	Text	The input text	java.lang.String	Y
			Characters num	The number of characters. Default (not specified) is 1	java.lang.Integer	
RTRIM	Clear a string, removing trailing whitespaces.	java.lang.String	Text	The text string to be trimmed	java.lang.String	Y
SEARCH	Returns the position of a string of text in another string. Search is not case-sensitive.	java.lang.Integer	Find Text	The text to find	java.lang.String	Y
			Text to search	The text to look into	java.lang.String	Y
			Start position	The initial position	java.lang.Integer	
SUBSTITUTE	Substitutes new text for old text in a text string. When no occurrence is specified all occurrences are replaced.	java.lang.String	Original Text	The text to be modified	java.lang.String	Y
			Old Text	The old text to be replaced	java.lang.String	Y
			New Text	The new text that will replace the old one	java.lang.String	Y
			Occurrence	The occurrence of old text to be replaced	java.lang.Integer	
T	Returns the text string if the value is a string, otherwise an empty string is returned.	java.lang.String	Generic value	The object value to be tested	java.lang.Object	Y

Text - Category for text/string manipulation functions

Name ▲	Description	Return Type	Parameters			
			Name	Description	Type	Requir.
TEXT	Converts a number into a text string according to a specified format.	java.lang.String	Number	The number to be formatted	java.lang.Number	Y
			Format	The format pattern	java.lang.String	Y
TRIM	Clear a string,removing leading and trailing whitespaces.	java.lang.String	Text	The text string to be trimmed	java.lang.String	Y
UPPER	Performs the upper case conversion of the specified text string.	java.lang.String	Text	The input text string	java.lang.String	Y

Functions Examples

Numeric / Mathematical Functions	Expression	Result
| -245 | is even	ISEVEN(ABS(-245))	false
14.4 * 22.56 * 10 * 34	PRODUCT(14.4, 22.56, 10, 34)	110.453,76
Random number between 0 and 1000	1000 * RAND()	671,524
Factorial of 5	FACT(5)	120
SQRT(6.25)	SQRT(6.25)	2,50
Max value in [4,6,2,3,9,4,1,7,3,8]	MAX(4, 6, 2, 3, 9, 4, 1, 7, 3, 8)	9

Date & Time Functions	Expression	Result
Current date	DATEFORMAT(NOW(), "EEEE, MMM d, yyyy")	miercuri, Apr 15, 2015
Current year	YEAR(TODAY())	2015
Four months later	DATEFORMAT(EDATE(TODAY(), 4), "MM/dd/yyyy")	08/15/2015
Five years ago	DATEFORMAT(EDATE(TODAY(), -60), "MMMM d, yyyy")	aprilie 15, 2010
Current week number	WEEKNUM(TODAY())	16
Next working day	DATEFORMAT(WORKDAY(TODAY(),1), "EEE, MMM dd")	J, Apr 16
Years since 2000	YEARS(DATE(2000, 1, 1), NOW())	15
Current time	DATEFORMAT(TODAY(), "hh:mm:ss a")	08:16:05 PM

Text Functions	Expression	Result
Concatenate "Hello", " ", "World"	CONCATENATE("Hello", " ", "World")	Hello World
Case sensitive search for "ll' in "Hello"	"Found on position " + (FIND("Hello", "ll") + 1)	Found on position 3
Case insensitive search for "LL" in "all"	"Found on position " + (SEARCH("LL", "all") + 1)	Found on position 2
Lower case for "Hello WORLD"	LOWER("Hello WORLD")	hello world
Capitalize each word	PROPER("Capitalize each word")	Capitalize Each Word
Replicates "Hello " three times	REPT("Hello ", 3)	Hello Hello Hello
Substitute "o" by "0" in "Hello World"	SUBSTITUTE("Hello World", "o", "0")	Hell0 W0rld
Extract "orl" from "Hello World"	MID("Hello World", 8, 3)	orl

Logical Functions	Expression	Result
This is true.	TRUE()	true
This is false.	FALSE()	false
3 < 5 AND 3 > 7	AND(3 < 5, 3 > 7)	false
3 < 5 OR 3 > 7	OR(3 < 5, 3 > 7)	true
Current month is before July	IF(MONTH(TODAY()) < 7, "YES", "NO")	YES