

SQL Functions Used in EPIDesigner Expressions

Database: **Oracle 9i**

When building expressions with EPIDesigner (version 6.x) using an ODBC connection to an Oracle 9i database, please refer to this document or your Oracle 9i documentation.

Operators

	Concatenation
'	Text delimiter
+	Addition
-	Subtraction

String Functions

ASCII(char)	Returns the ASCII (0-255) value of the first character in the string "str". Example: ASCII('a') returns 97 (ASCII value for 'a').
CHR(number)	Returns the character for which the ASCII code is "number." Example: CHR(10) returns a line feed.
INITCAP(str)	Returns "str" with first letter of each word capitalized. Example: INITCAP('mary smith') will return 'Mary Smith'.
INSTR(str1, str2), or INSTR(str1, str2, start)	Returns the position of "str2" in "str1" starting at position "start" (optional). Example: INSTR('000034;Mary;SMITH',';') will return position 7.
LENGTH(str)	Returns the number of characters in "str". Example: LENGTH('Mary') returns 5.
LOWER(str)	Returns the string "str" with all characters converted to lower case. Example: LOWER('Mary') will return 'mary'.
LPAD (char1,n) or LPAD(char1,n,char)	Returns the string "char1", left padded with "n" occurrences of "char" or spaces. Example: LPAD('123',5,'0') will return '00000123'.
LTRIM(str) or LTRIM(str, chars)	Removes the initial characters in "str" up to the first character not in "chars". "Chars" defaults to a space character. Example: LTRIM('00000123','0') will return '123'.
RPAD (char1,n) or RPAD(char1,n,char)	Returns the string "char1", right padded with "n" occurrences of "char" or spaces. Example: RPAD('123',5,'0') will return '12300000'.
RTRIM(str) or RTRIM(str,chars)	Removes final characters in "str" until the last character not in "chars". Chars defaults to a space. Example: RTRIM('Mary ') will return 'Mary'.
SUBSTR(char,m) or SUBSTR(char, m, n)	Returns a sub-string of "char", beginning at character "m", "n" characters long (if "n" is omitted, to the end of "char"). Example: SUBSTR('00012345',4,3) will return '123'.
UPPER(str)	Converts the characters of "str" to upper case. Example: UPPER('Mary') will return 'MARY'.

Numeric Functions

CEIL(n)	Returns the smallest integer greater than or equal to "n". Example: CEIL(99.8) returns 100.
FLOOR(n)	Returns the largest integer equal to or less than "n". Example: FLOOR(99.8) returns 99.
MOD(m,n)	Returns remainder of "m" divided by "n". Example: MOD(12,10) will return 2.
ROUND(n) or ROUND(n, m)	Returns "n" rounded to "m" decimal places; "m" defaults to 0. Example: ROUND(99.8) returns 100.
TRUNC(n) or TRUNC(n, m)	Returns "n" truncated to "m" decimal places; "m" defaults to 0. Example: TRUNC(99.8) returns 99.

Date and Time Functions

ADD_MONTHS(d,n)	Returns date "d" plus "n" months. Example: ADD_MONTHS(Creation_Date, 6) will return a date value which is 6 months later than d.
LAST_DAY(d)	Returns the last day of the month of date "d". Example: LAST_DAY(SYSDATE) will return the last day of the current month.
MONTHS_BETWEEN(d, e)	Returns the number of month by which date "e" preceeds date "d". Example: MONTHS_BETWEEN(Print_Date, Creation_Date) will return the number of months during which the card record was created but not printed.
NEXT_DAY(d, day)	Returns the date of the first day of the week named by "day" that is equal to or later than the date "d".
SYSDATE	Returns the current system date and time.

Conversion Functions

TO_CHAR(n) or TO_CHAR(n, num_fmt)	Converts "n" to a char value in the format specified by "num_fmt". If "num_fmt" is omitted, "n" is converted to a char value exactly long enough to hold the significant digits.
TO_CHAR(d) or TO_CHAR(d, date_fmt)	Converts "d" to a char value in the format specified by "date_fmt". If "date_fmt" is omitted, "d" is converted into default date format, "DD-MON-YY".
TO_DATE(char) or TO_DATE(Char, date_fmt)	Converts "char", which is a character value containing a date value in the format specified by "date_fmt", into a date value. If "date_fmt" is omitted, "char" must be in default date format, "DD-MON-YY".
TO_NUMBER(chr) or TO_NUMBER(chr,n_fmt)	Converts "chr", which is a character value containing a number in the format specified by the optional "n_fmt", into a number value.

Numeric Format

Numeric Format	Example	Function
9	9999	Number of "9"s determines length of returned character.
0	'0999'	Prefixes value with leading zeroes.
\$	\$9999	Prefixes value with dollar sign.
B	B9999	Returns zero value as blank, instead of "0".
MI	9999MI	Returns "-" after negative values.
S	S9999	Returns "+" for positive values and "-" for negative values.
PR	9999PR	Returns negative values in <angle brackets>.
D	99D99	Returns the decimal character.
,	9,999	Returns a comma in this position.
.	99.99	Returns a period in this position.
EEEE	9.999EEEE	Returns value in scientific notation. fmt must contain exactly four "E"s.

Date Format

Date Format	Value Returned
CC	Century
YYYY	Year
YYY or YY or Y	Last 3, 2, or 1 digit(s) of year. Century defaults to current
YEAR	Year spelled out
Q	Quarter of year (1,2,3,4; JAN-MAR=1)
MM	Month of year (01-12; JAN=01)
MONTH	Month name, padded with blanks to 9 characters.
MON	Name of month, abbreviated (JAN, FEB,etc.).
WW or W	Week of year (01-52) or month (1-5)
DDD or DD or D	Day of year (1-366) or month (1-31) or week (1-7).
DAY	Name of day, blank-padded to 9 characters.
DY	Name of day, 3-letter abbreviation.
-,,:;	Punctuation is reproduced in the result.
"...text..."	Quoted string is reproduced in the result.