

Function Reference

In Microsoft Access 2010, finding all the most useful functions in Help can be difficult at best. Following is a list of functions, categorized by type, that you might need to use.

The tables list the function name and a brief description of what the function does. You can easily find details about the particular function syntax in Help if you know the function name.

Table A4-1 Arithmetic Functions

Name	Description
Abs	Returns the absolute value of a number.
Asc	Returns the integer value of a character.
Atn	Returns the arctangent of a number.
Cos	Returns the cosine of a number that is an angle specified in radians.
DDB	Returns a Double containing the depreciation of a value for a specific time period.
Exp	Returns the value of the base of the natural logarithm (e) raised to the exponent you supply. See also <i>Log</i> .
Fix	Returns the value of the number you supply truncated to an integer. If the number is negative, Fix returns the first integer that is greater than or equal to the number. See also <i>Int</i> .
FV	Calculates the future value of an annuity.
Int	Returns the value of the number you supply truncated to an integer. If the number is negative, Int returns the first integer that is less than or equal to the number. See also <i>Fix</i> .
IPmt	Returns the interest payment for a given period of an annuity.
IRR	Returns the internal rate of return for a series of periodic cash flows.
LBound	Returns the lowest available subscript for the array and dimension you specify. See also <i>UBound</i> .
Log	Returns the natural logarithm of the number you supply. See also <i>Exp</i> .
MIRR	Returns the Modified Internal Rate of Return for a series of periodic cash flows.
NPER	Returns the number of payment periods for an annuity.
NPV	Returns the net present value of an investment.
PMT	Returns the payment required for an annuity.

Name	Description
PPMT	Returns the amount applied to the principal for a given payment period of an annuity.
PV	Returns the present value of an annuity.
RATE	Returns the interest rate of an annuity.
Rnd	Returns a random number.
Round	Rounds a number to the specified number of decimal places.
Sin	Returns the sine of a number that is an angle specified in radians.
SLN	Returns the straight-line depreciation of an asset for a single period.
Sqr	Returns the square root of a number.
SYD	Returns the sum of the years' digits depreciation of an asset.
Tan	Returns the tangent of a number that is an angle specified in radians.
UBound	Returns the highest available subscript for the array and dimension you specify. See also <i>LBound</i> .

Table A4-2 Conversion Functions

Name	Description
Array	Converts a list of values into a Variant data type array.
Asc	Converts a character to the equivalent integer code.
CBool	Evaluates an expression and returns True (–1) or False (0).
CByte	Converts a value to a Byte data type.
CCur	Converts a value to a Currency data type.
CDate	Converts a value to a Date/Time data type.
CDbl	Converts a value to a Double data type.
CDec	Converts a numeric value to a Decimal data type.
Chr	Converts an integer representing a character code to a string containing that character.
CInt	Converts a value to an Integer data type. The function rounds fractions.
CLng	Converts a value to a Long Integer data type. The function rounds fractions.
CSng	Converts a value to a Single data type.
CStr	Converts a value to a String data type. A Null value generates an error. Boolean values convert to “yes” or “no.” A date converts to a string in your system’s short date format.
CVar	Converts a value to a Variant data type. If the value is a number, the value must be in the ranges valid for CDbl.
Format	Converts a number, string, or date/time value to a string formatted according to the format expression supplied.

Name	Description
Hex	Converts a number to a string representation of the hexadecimal value of the number.
Nz	Returns zero, a zero-length string (""), or another specified value when a Variant is Null.
Oct	Converts a number to a string representation of the octal value of the number.
Str	Converts a number to a string.
Val	Converts the numbers found in a string to a valid numeric data type.

Table A4-3 Date/Time Functions

Name	Description
Date	Returns the current system date as a Variant.
DateAdd	Adds a specified interval to a date value.
DateDiff	Finds the difference between two date/time values in the interval you specify.
DatePart	Returns a requested portion of a date/time value (second, minute, hour, week, weekday, day, day of year, month, quarter, or year).
DateSerial	Returns a date value calculated from supplied integer year, month, and day values. The year value must be from 100 to 9999.
DateValue	Returns the date portion of a date/time value.
Day	Returns the day portion of a date/time value. See also <i>DatePart</i> .
Hour	Returns the hour portion of a date/time value. See also <i>DatePart</i> .
Minute	Returns the minute portion of a date/time value. See also <i>DatePart</i> .
Month	Returns the numeric month portion of a date/time value. See also <i>DatePart</i> .
MonthName	Returns the name of the month of a date/time value.
Now	Returns the current system date and time as a Variant.
Second	Returns the seconds portion of a date/time value. See also <i>DatePart</i> .
Time	Returns the current system time as a Variant.
Timer	Returns a Double containing the number of seconds elapsed since midnight, accurate to .01 seconds.
TimeSerial	Returns a time value calculated from supplied integer hour, minute, and second values.
TimeValue	Returns the time portion of a date/time value.
WeekDay	Returns the integer day of the week from a date/time value. Sunday is 1, Monday is 2, and so on.
WeekDayName	Returns the name of the day from a date/time value.
Year	Returns the year portion of a date/time value. See also <i>DatePart</i> .

Table A4-4 Logic Functions

Name	Description
Choose	Returns a value from a list based on an integer index in the first argument.
IIF	Evaluates the first argument for True/False. If True, the function evaluates the second argument; otherwise, the function evaluates the third argument.
IsArray	Returns True if the argument you supply is an array.
IsDate	Returns True if the argument you supply can be converted to a date.
IsEmpty	Returns True if the Variant argument you supply has never been initialized.
IsError	Returns True if the number you supply is a valid error value.
IsMissing	Returns True if an optional argument to your Sub or Function procedure has not been supplied.
IsNull	Returns True if the argument you supply is the Null value. Note that you cannot compare a variable to the constant Null (If A = Null Then...).
IsNumeric	Returns True if the argument you supply can be evaluated as a number.
IsObject	Returns True if the argument you supply is an object variable.
Sgn	Returns an indication whether the number you supply is negative, positive, or zero.
StrComp	Compares two strings. If you want, you can specify a comparison that is binary or case-sensitive. (Default string comparison in Access is not case-sensitive.)
Switch	Accepts a series of pairs of expressions (primary and secondary). The primary expression of each pair must be an expression that can be evaluated to True or False. Evaluates the expressions left to right and returns the secondary expression for the first primary expression that evaluates True.
TypeName	Returns the data type of the variable or expression you supply as a spelled-out name of the data type. See also <i>VarType</i> .
Updated	Returns a Boolean value indicating whether the specified field is dirty for the current record.
VarType	Returns an integer code indicating the data type of the variable or expression you supply. See also <i>TypeName</i> .

Table A4-5 String Functions

Name	Description
Chr	Returns the character value of an integer character code.
Filter	Returns an array of values from an input array that contains or excludes a specified search string.
First	Returns a field value from the first record in the result set returned by a query.

Name	Description
Format	Returns a string containing the value you supply, formatted according to the format string you specify.
FormatCurrency	Formats the number you supply as a currency string.
FormatDateTime	Formats the date/time value you supply as a date and/or time string.
FormatNumber	Formats the number you supply as a string with the specified decimal places and negative indicator characters. See also <i>Str</i> .
FormatPercent	Multiplies the number you supply by 100 and returns a string with a trailing percent (%) sign.
Hex	Returns a string containing the hexadecimal (base 16) value of the number you supply.
InStr	Returns the integer offset position of a search string within another string, searching the target string from the beginning.
InStrRev	Returns the integer offset position of a search string within another string, searching the target string from the end.
Join	Concatenates the one-dimensional array you supply into a single string separated by the delimiter you specify. See also <i>Split</i> .
LCase	Converts a string to all lowercase characters. See also <i>UCase</i> and <i>StrConv</i> .
Last	Returns a field value from the last record in the result set returned by a query.
Left	Returns the requested number of leftmost characters from a string.
Len	Returns the current length of a string.
LTrim	Returns a string with any leading blanks removed from the string you specify.
Mid	Returns the specified number of characters starting from a specified position in the middle of a string.
Oct	Returns a string containing the octal (base 8) value of the number you supply.
Partition	Returns a string range name for a numeric variable based on the range start, stop, and interval values you supply.
Replace	Examines a string you supply and returns a string with all occurrences of one string replaced by another string.
Right	Returns the requested number of rightmost characters from a string.
RTrim	Returns a string with any trailing blanks removed from the string you specify.
Space	Returns a string containing the specified number of spaces.
Split	Returns a zero-based one-dimensional array. It fills the array with the substrings that it finds by parsing a string you supply with a delimiter you specify. See also <i>Join</i> .

Name	Description
Str	Converts a number to a string. See also <i>FormatNumber</i> and <i>Format</i> .
StrConv	Converts a string according to the method you specify. Options include all uppercase, all lowercase, and proper case. See also <i>LCase</i> and <i>UCase</i> .
StrReverse	Returns a string in which the order of characters in the string you supply is reversed.
String	Returns a string of the length you specify, filled with the character you supply.
Trim	Returns a string with any leading and trailing blanks removed from the string you specify.
UCase	Converts a string to all uppercase characters. See also <i>LCase</i> and <i>StrConv</i> .

Table A4-6 User Interface/System/File System Functions

Name	Description
Command	Returns the string of characters following the /cmd switch in the command or shortcut you used to start your application.
CurDir	Returns the current path or the current path on the specified drive.
Dir	Returns a file name based on a supplied path and search criteria. After calling Dir once with a path argument and criteria, you can call Dir without arguments to fetch additional files in the path that also meet the criteria. Dir returns a zero-length string when no more files meet the criteria.
DoEvents	Pauses the currently executing code so that Access or the operating system can process other events.
Environ	Returns an operating system environment variable, either by name or by relative number.
EOF	Return a Boolean value indicating whether the specified file opened for random or sequential input has reached the end of a file.
Error	Returns the text of the message associated with the specified error number.
FileAttr	Returns a long integer indicating the file mode for the specified file number.
FileDateTime	Returns the create date or the last modification date of the file path you specify.
FileLen	Returns the size of the file path you specify.
FreeFile	Returns an integer value of the next file number available to use in an Open statement.
GetAllSettings	Returns a two-dimensional array from the registry of the keywords and settings for the specified application and section name.
GetAttr	Returns the attributes of the file or path you specify.

Name	Description
GetSetting	Returns the registry value for a specific application and key name.
Input	Fetches the next character from a file opened in input or binary mode.
InputBox	Prompts the user with a message you supply and returns the user response.
Loc	Returns a long integer indicating the current position within the specified open file.
LOF	Returns a long integer indicating the size in bytes of the specified open file.
MsgBox	Displays a message you supply in a dialog box and returns an indication of which button the user clicked in response.
QBColor	Returns the red, green, and blue (RGB) color value as a long integer for one of the 16 original Quick Basic color numbers. The numbers are 0 through 15 and, in order, are black, blue, green, cyan, red, magenta, yellow, white, gray, light blue, light green, light cyan, light red, light magenta, light yellow, and bright white.
RGB	Returns the RGB value based on red, green, and blue values you supply.
Seek	Returns the current read/write position for the specified file as a long integer.
Shell	Executes the program you specify.

Table A4-7 SQL Aggregate Functions

Name	Description
Avg	Calculates the arithmetic mean of a set of values contained in a specified field on a query.
Count	Calculates the number of records returned by a query.
Max	Returns the maximum of a set of values contained in a specified field on a query.
Min	Returns the minimum of a set of values contained in a specified field on a query.
StDev	Returns estimates of the standard deviation for a population sample represented as a set of values contained in a specified field on a query.
StDevP	Returns estimates of the standard deviation for a population represented as a set of values contained in a specified field on a query.
Sum	Returns the sum of a set of values contained in a specified field on a query.
Var	Returns estimates of the variance for a population sample represented as a set of values contained in a specified field on a query.
VarP	Returns estimates of the variance for a population represented as a set of values contained in a specified field on a query.

Table A4-8 Access Services Functions

Name	Description
CurrentWebUser	In published web applications, returns a String representing the user currently logged in. Returns Null in client-only applications.
CurrentWebUser-Groups	In published web applications, returns a String listing the groups to which the currently-logged-in user belongs. Returns Null in client-only applications.
IsClient	Expression that returns true when evaluated on the client and false when evaluated on the server.
IsCurrentWebUser-InGroup	In published web applications, returns a Boolean value indicating whether the user currently logged in is a part of the specified group. Returns false in client-only applications.

The following table is a list of web-compatible functions and in what context they can be used. You can refer to the previous tables for any function descriptions.

Table A4-9 Web-Compatible Functions

Name	Usage Context
Abs	Data macros, queries, reports
Asc	Data macros, queries, reports
Atn	Data macros, queries, reports
Avg	Forms, reports
CDbl	Data macros, forms, queries, reports, user interface macros
Choose	Data macros, queries, reports
Cos	Data macros, queries, reports
Count	Forms, reports
CurrentWebUser	Forms, queries, user interface macros
CurrentWebUserGroups	Forms, queries, user interface macros
Date	Data macros, forms, queries, reports, user interface macros
DateSerial	Data macros, forms, queries, reports, user interface macros
Day	Data macros, queries, reports
DDB	Data macros, queries, reports
Exp	Data macros, queries, reports
Last	Reports
Fix	Data macros, queries, reports
FormatCurrency	Data macros, forms, queries, reports, user interface macros
FormatDateTime	Data macros, forms, queries, reports, user interface macros

Name	Usage Context
FormatNumber	Data macros, forms, queries, reports, user interface macros
FormatPercent	Data macros, forms, queries, reports, user interface macros
FV	Data macros, queries, reports
Hour	Data macros, queries, reports
IIF	Data macros, forms, queries, reports, user interface macros
InStr	Data macros, forms, queries, reports, user interface macros
Int	Data macros, queries, reports
IPmt	Data macros, queries, reports
IsClient	Forms, user interface macros
IsCurrentWebUserIn-Group	Forms, queries, user interface macros
IsEmpty	Data macros, queries, reports
IsNull	Data macros, forms, queries, reports, user interface macros
Last	Reports
LCase or LCase\$	Data macros, forms, queries, reports, user interface macros
Left or Left\$	Data macros, forms, queries, reports, user interface macros
Len	Data macros, forms, queries, reports, user interface macros
Log	Data macros, queries, reports
Max	Reports
Mid or Mid\$	Data macros, forms, queries, reports, user interface macros
Min	Reports
Minute	Data macros, queries, reports
Month	Data macros, queries, reports
MonthName	Data macros, queries, reports
Now	Data macros, forms, queries, reports, user interface macros
NPER	Data macros, queries, reports
Nz	Data macros, forms, queries, reports, user interface macros
PMT	Data macros, queries, reports
PPMT	Data macros, queries, reports
PV	Data macros, queries, reports
RATE	Data macros, queries, reports
Right or Right\$	Data macros, forms, queries, reports, user interface macros
Round	Data macros, forms, queries, reports, user interface macros
Second	Data macros, queries, reports

Name	Usage Context
Sgn	Data macros, queries, reports
Sin	Data macros, queries, reports
SLN	Data macros, queries, reports
Space or Space\$	Data macros, queries
Sqr	Data macros, queries, reports
StDev	Reports
StDevP	Reports
Str or Str\$	Data macros, queries, reports
String or String\$	Data macros, queries, reports
Sum	Forms, reports
SYD	Data macros, queries, reports
Tan	Data macros, queries, reports
Time	Data macros, queries, reports
TimeSerial	Data macros, queries, reports
Trim or Trim\$	Data macros, queries, reports
UCase or UCase\$	Data macros, forms, queries, reports, user interface macros
Updated	Data macros
Var	Reports
VarP	Reports
WeekDay	Data macros, queries, reports
WeekDayName	Data macros, queries, reports
Year	Data macros, queries, reports