FileMaker® Pro 11

Functions Reference

FileMaker, Inc.
5201 Patrick Henry Drive
Santa Clara, California 95054

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Working with formulas and functions

A function is a predefined, named formula that performs a specific calculation and returns a single, specific value.

Most functions include three basic parts:

- the function
- a set of parentheses, if the function takes parameters
- the parameters required by the function

Each function returns a result of field type text, number, date, time, timestamp, or container.

A formula calculates a single value, based on constants (such as 1.07 or “hello”), operators (such as “+” or “>”), and field references (such as Subtotal or InvoiceTotal) you enter. For example, if sales tax in your area is 7% and you have a field named Subtotal, you could create a field named InvoiceTotal that gets the value of the formula `Subtotal * 1.07`.

If a formula is especially common or popular, FileMaker Pro gives it a name and defines exactly how you should use it. A named and predefined formula is called a function. For example, if you want to find the average of some test scores, you could write your own formula to add them all and divide by the total number of scores. A simpler approach would be to use the function named `Average` and follow the rules defined for its use.

Using this functions reference

The content in this document was originally written for the FileMaker Pro and FileMaker Pro Advanced Help. It has been collected in this format to allow solution developers to read the information independent of the help system. Links to help topics may not work in this format.

Learning about functions

If you’re new to functions, use the following resources to learn about working with functions.

To use a step-by-step tutorial:

- In FileMaker Pro, choose **Help** menu > **Product Documentation** > **Tutorial**.

To view all help topics about individual functions:

- In FileMaker Pro, choose **Help** > **FileMaker Pro Help**. In the help window, choose **Reference** > **Functions reference**.
- To view answers to frequently asked questions, tips, troubleshooting advice, and more, visit the FileMaker Knowledge Base at www.filemaker.com/kb/.

Functions reference (alphabetical list)

G

V, W, X, Y, Z

Aggregate functions

Aggregate functions perform statistical analysis on numbers (and also dates or times for some functions) in:

- several fields in a record.
- related fields whether displayed in a portal or not.
- repeating fields.

For example, you can use the `Sum` function to add the values listed in a portal, as an alternative to creating a report with grouped data and subtotals.

The parameter values can include a numeric constant (for example, 10) or any valid expression. A constant parameter in a formula for a repeating field affects the result for every repetition.

When repeating field parameters (field1; field2;...) include a non-repeating field, that value is used in the result for only the first repetition unless you use the Extend function.

Values in repetitions that exceed the number of repetitions in the calculated field are ignored. For example, a calculated field with three repetitions holds only three results, even when one field referenced in the calculation has five repetitions.

Click a function name for details.

This function	Returns
Average	The average of all valid, non-blank values in the specified field.
Count	The number of valid, non-blank values in the specified field.
List	The concatenation of all non-blank values in list form, separated by carriage returns.
Max	The highest valid value in a field or fields.
Min	The smallest valid non-blank value in a field or fields.
StDev	The standard deviation of a series of valid non-blank values in a field or fields.
StDevP	The standard deviation of a population represented by a series of valid non-blank values in a field or fields.
Sum	The total of all valid, non-blank values in the specified fields.
Variance	The variance of a series of valid non-blank values in a field or fields.
VarianceP	The variance of a population in a series of valid non-blank values in a field or fields.

Average

Purpose

Returns a value that is the average of all valid, non-blank values in `field`.

Format

```
Average(field{;field...})
```

Parameters

`field` - any related field, repeating field, or set of non-repeating fields; or an expression that returns a field, repeating field, or set of non-repeating fields.

Parameters in curly braces { } are optional.

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

`Field` can be any of the following:

- a repeating field `(repeatingField).`
- a field in matching related records specified by `(table::field)`, whether or not these records appear in a portal.
- several non-repeating fields in a record `(field1;field2;field3...).`
- corresponding repetitions of repeating fields in a record `(repeatingField1;repeatingField2;repeatingField3)`, if the result is returned in a repeating field with at least the same number of repeats.
- several fields in the first matching record specified by `(table::field1;table::field2;...)`. You can include fields from different tables `(table 1::field A;table 2::field B...).`

Examples

A Student table has a portal showing scores for all exams a student has taken. The exam scores are in a table called Exams.

`Average(Exams::Score)` returns the student's average score for all exams she has taken.

In the following examples:

• Field1 contains two repetitions with values of 1 and 2.

• Field2 contains four repetitions with values of 5, 6, 7, and 8.

• Field3 contains 6.

`Average(Field2)` returns **6.5** when the calculation isn't a repeating field.

`Average(Field1;Field2;Field3)` returns **4**, **4**, **7**, **8** when the calculation is a repeating field.

Note When a referenced field is a repeating field, the `Average` function returns the average of the values in the first repetition field, then the average of the values in the second repetition field, and so on. Therefore, **(1+5+6)/3=4;(2+6)/2=4;7/1=7;8/1=8**.

Related topics

Contents
Functions reference (alphabetical list)

Count

Purpose

Returns the number of valid, non-blank values in `field`.

Format

```
Count(field{;field...})
```

Parameters

`field` - any related field, repeating field, or set of non-repeating fields; or an expression that returns a field, repeating field, or set of non-repeating fields.

Parameters in curly braces { } are optional.

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

`Field` can be any of the following:

- a repeating field `(repeatingField).`
- a field in matching related records specified by `(table::field)`, whether or not these records appear in a portal.
- several non-repeating fields in a record `(field1;field2;field3...).`
- corresponding repetitions of repeating fields in a record `(repeatingField1;repeatingField2;repeatingField3)`, if the result is returned in a repeating field with at least the same number of repeats.
- several fields in the first matching record specified by `(table::field1;table::field2;...)`. You can include fields from different tables `(table 1::field A;table 2::field B...).`

Examples

The Accounts layout has a portal showing installment payments made.

`Count(Payments::Payment)` returns the number of payments made on an account.

In the following examples:

- Field1 contains two repetitions with values of 1 and 2.
- Field2 contains four repetitions with values of 5, 6, 7, and 8.
- Field3 contains 6.

`Count(Field2)` returns **4** when the calculation isn't a repeating field.

`Count(Field1;Field2;Field3)` returns **3**, **2**, **1**, **1** when the calculation is a repeating field.

Note When a referenced field is a repeating field, the `Count` function returns the total number of valid, non-blank values in the first repetition field, then the number of valid, non-blank values in the second repetition field, and so on.

Related topics

Contents
Functions reference (alphabetical list)

List

Purpose

Returns a concatenated list of non-blank values (separated by carriage returns) for a field or fields.

Format

```
List(field{;field...})
```

Parameters

`field` - any related field, repeating field, or set of non-repeating fields; or an expression that returns a field, repeating field, or set of non-repeating fields.

Parameters in curly braces { } are optional.

Data type returned

text

Originated in

FileMaker Pro 8.5

Description

Use this function to return a list of values for:

- a single field `(table::field)`, which returns a single result over all repetitions (if any) for this field and over all matching related records, whether or not these records appear in a portal.
- several fields and/or literal values `(table::field1,constant,table::field2...)`, which returns a separate result for each repetition of the calculation across each corresponding repetition of the fields. If any fields are related, only the first related record is used.

Examples

In the following examples:

- Field1 contains white.
- Field2 contains black.
- Field3 contains three repetitions with values of red, green, blue.
- Related::Field4 refers to three records that contain 100, 200, 300.

Note When referencing multiple repeating fields, `List()` returns the list of values across the first repetition in the calculation's first repetition, then the list of values across the second repetition in the second repetition, and so on.

Example 1

`List (Field1; Field2)` returns:

- white
- black

Example 2

`List(Field3)` returns:

- red
- green
- blue

Example 3

`List (Field1; Field2; Field3)` returns:

in calculation repetition 1:

- white
- black
- red

in calculation repetition 2:

- green

in calculation repetition 3:

- blue

Example 4

`List(Related::Field4)` returns:

- 100
- 200
- 300

Max

Purpose

Returns the highest valid value in `field`.

Format

`Max(field{;field...})`

Parameters

`field` - any related field, repeating field, or set of non-repeating fields; or an expression that returns a field, repeating field, or set of non-repeating fields.

Parameters in curly braces { } are optional.

Data type returned

text, number, date, time, timestamp

Originated in

FileMaker Pro 6.0 or earlier

Description

`Field` can be any of the following:

- a repeating field `(repeatingField).`
- a field in matching related records specified by `(table::field)`, whether or not these records appear in a portal.
- several non-repeating fields in a record `(field1;field2;field3...).`
- corresponding repetitions of repeating fields in a record `(repeatingField1;repeatingField2;repeatingField3)`, if the result is returned in a repeating field with at least the same number of repeats.
- several fields in the first matching record specified by `(table::field1;table::field2;...)`. You can include fields from different tables `(table 1::field A;table 2::field B...).`

Examples

The Accounts layout has a portal showing installment payments made.

`Max(Payments::PaymentDate)` returns the most recent date a payment was made on an account.

In the following examples:

- Field1 contains two repetitions with values of 1 and 2.
- Field2 contains four repetitions with values of 5, 6, 7, and 8.
- Field3 contains 6.

`Max(Field2)` returns **8** when the calculation isn't a repeating field.

`Max(Field1;Field2;Field3)` returns **6**, **6**, **7**, **8** when the calculation is a repeating field.

Note When a referenced field is a repeating field, the `Max` function returns the maximum value in the first repetition field, then the maximum value in the second repetition field, and so on.

Related topics

Contents
Functions reference (alphabetical list)

Min

Purpose

Returns the smallest valid non-blank value in `field`.

Format

`Min(field{;field...})`

Parameters

`field` - any related field, repeating field, or set of non-repeating fields; or an expression that returns a field, repeating field, or set of non-repeating fields.

Parameters in curly braces { } are optional.

Data type returned

text, number, date, time, timestamp

Originated in

FileMaker Pro 6.0 or earlier

Description

`Field` can be any of the following:

- a repeating field `(repeatingField).`
- a field in matching related records specified by `(table::field)`, whether or not these records appear in a portal.
- several non-repeating fields in a record `(field1;field2;field3...).`
- corresponding repetitions of repeating fields in a record `(repeatingField1;repeatingField2;repeatingField3)`, if the result is returned in a repeating field with at least the same number of repeats.
- several fields in the first matching record specified by `(table::field1;table::field2;...)`. You can include fields from different tables `(table 1::field A;table 2::field B...).`

Examples

A Contracts table has a portal showing bids submitted for each contract.

`Min(Bids::Price)` returns the lowest bid submitted for a contract.

In the following examples:

- Field1 contains two repetitions with values of 1 and 2.
- Field2 contains four repetitions with values of 5, 6, 7, and 8.
- Field3 contains 6.

`Min(Field2)` returns **5** when the calculation isn't a repeating field.

`Min(Field1;Field2;Field3)` returns **1**, **2**, **7**, **8** when the calculation is a repeating field.

Note When a referenced field is a repeating field, the `Min` function returns the minimum value in the first repetition field, then the minimum value in the second repetition field, and so on.

StDev

Purpose

Returns the standard deviation of the sample represented by a series of non-blank values in `field`.

Format

```
StDev(field{;field...})
```

Parameters

`field` - any related field, repeating field, or set of non-repeating fields; or an expression that returns a field, repeating field, or set of non-repeating fields.

Parameters in curly braces { } are optional.

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

`Field` can be any of the following:

- a repeating field `(repeatingField)`.
- a field in matching related records specified by `(table::field)`, whether or not these records appear in a portal.
- several non-repeating fields in a record `(field1;field2;field3)`.
- corresponding repetitions of repeating fields in a record `(repeatingField1;repeatingField2;repeatingField3)`, if the result is returned in a repeating field with at least the same number of repeats.
- several fields in the first matching record specified by `(table 1::field A, table 2::field B,...)`. You can name a different table for each field `(table 1::field A;table 2::field B...)`.

$$\mathbf{StDev} = \sqrt{\frac{\mathbf{x}_1^2 + \mathbf{x}_2^2 + \ldots + \mathbf{x}_n^2}{\mathbf{n} - \mathbf{1}} - \frac{(\mathbf{x}_1 + \mathbf{x}_2 + \ldots + \mathbf{x}_n)^2}{\mathbf{n}(\mathbf{n} - \mathbf{1})}}$$

Examples

A portal displays the related values 5, 6, 7, and 8 in a field called `Scores`.
`StDev(table::Scores)` returns **1.29099444...**.

In the following examples:

- Field1 contains two repetitions with values of 1 and 2.
- Field2 contains four repetitions with values of 5, 6, 7, and 8.
- Field3 contains four repetitions with values of 6, 0, 4, and 4.
- Field4 contains one repetition with a value of 3.

`StDev(Field4)` results in an error because standard deviation of a single number is not defined.

`StDev(Field1;Field2;Field3)` returns **2.64575131...**, **3.05505046...**, **2.12132034...**, **2.82842712...** for a repeating field.

Note When a referenced field is a repeating field, the `StDev` function returns the standard deviation in the first repetition fields, then the standard deviation in the second repetition fields, and so on.

Related topics

Contents
Functions reference (alphabetical list)

StDevP

Purpose

Returns the standard deviation of a population represented by a series of non-blank values in `field`.

Format

`StDevP(field{;field... })`

Parameters

`field` - any related field, repeating field, or set of non-repeating fields; or an expression that returns a field, repeating field, or set of non-repeating fields.

Parameters in curly braces { } are optional.

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

`Field` can be any of the following:

- a repeating field `(repeatingField).`

- a field in matching related records specified by `(table::field)`, whether or not these records appear in a portal.
- several non-repeating fields in a record `(field1;field2;field3...)`.
- corresponding repetitions of repeating fields in a record `(repeatingField1;repeatingField2;repeatingField3)`, if the result is returned in a repeating field with at least the same number of repeats.
- several fields in the first matching record specified by `(table::field1;table::field2;...)`. You can include fields from different tables `(table 1::field A;table 2::field B...)`.

$$\textbf{StDevP} = \sqrt{\frac{x_1^2 + x_2^2 + \ldots + x_n^2}{n} - \left(\frac{x_1 + x_2 + \ldots + x_n}{n}\right)^2}$$

Examples

A portal displays the related values 5, 6, 7, and 8 in the field `Scores`. `StDevP(table::Scores)` returns **1.11803398....**.

In the following examples:

- Field1 contains two repetitions with values of 1 and 2.
- Field2 contains four repetitions with values of 5, 6, 7, and 8.
- Field3 contains four repetitions with values of 6, 0, 4, and 4.
- Field4 contains one repetition with a value of 3.

`StDevP(Field4)` results in an error because the population standard deviation of a single number is not defined.

`StDevP(Field2)` returns **1.11803398...** for a non-repeating field.

`StDevP(Field1;Field2;Field3)` returns **2.16024689...**, **2.49443825...**, **1.5**, **2** for repeating fields.

Note When a referenced field is a repeating field, the `StDevP` function returns the standard deviation of a population in the first repetition fields, then the standard deviation of a population in the second repetition fields, and so on.

Related topics

Contents
Functions reference (alphabetical list)

Sum

Purpose

Returns the total of all valid, non-blank values in `field`.

Format

```
Sum(field{;field...})
```

Parameters

`field` - any related field, repeating field, or set of non-repeating fields; or an expression that returns a field, repeating field, or set of non-repeating fields.

Parameters in curly braces { } are optional.

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

`Field` can be any of the following:

- a repeating field `(repeatingField).`
- a field in matching related records specified by `(table::field)`, whether or not these records appear in a portal.
- several non-repeating fields in a record `(field1;field2;field3...).`
- corresponding repetitions of repeating fields in a record `(repeatingField1;repeatingField2;repeatingField3)`, if the result is returned in a repeating field with at least the same number of repeats.
- several fields in the first matching record specified by `(table::field1;table::field2;...)`. You can include fields from different tables `(table 1::field A;table 2::field B...).`

Examples

An Invoice table has a portal showing line items.

`Sum(LineItems::ExtendedPrice)` totals the amounts for all items on the invoice.

A TimeBilling table has a portal showing time worked on a project. Hours is a time field.

`Sum(Hours::BillableHours)` returns the total number of billable hours on a project. Thus, if the portal shows **40** hours and **15:30** hours, the total billable hours are 55:30, or 55 1/2 hours.

In the following examples:

- Field1 contains two repetitions with values of 1 and 2.
- Field2 contains four repetitions with values of 5, 6, 7, and 8.
- Field3 contains 6.

If the calculation result isn't a repeating field:

- `Sum(Field2)` returns **26**.
- `Sum(Field1;Field2;Field3)` returns **12**.

If the calculation result is a repeating field:

- `Sum(Field2)` returns a repeating field with **26** in the first repetition.
- `Sum(Field1;Field2;Field3)` returns a repeating field with **12**, **8**, **7**, **8**.

Note When a referenced field is a repeating field, the `Sum` function returns the sum of the first repetition field, then the sum of the second repetition field, and so on.

Related topics

Contents

Functions reference (alphabetical list)

Variance

Purpose

Returns the variance of a sample represented by a series of non-blank values in `field`.

Format

`Variance(field{;field...})`

Parameters

`field` - any related field, repeating field, or set of non-repeating fields; or an expression that returns a field, repeating field, or set of non-repeating fields.

Parameters in curly braces { } are optional.

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

The variance of a distribution is a measure of how spread out the distribution is. `Field` can be any of the following:

- a repeating field `(repeatingField)`.
- a field in matching related records specified by `(table::field)`, whether or not these records appear in a portal.
- several non-repeating fields in a record `(field1;field2;field3...)`.
- corresponding repetitions of repeating fields in a record `(repeatingField1;repeatingField2;repeatingField3)`, if the result is returned in a repeating field with at least the same number of repeats.
- several fields in the first matching record specified by `(table::field1;table::field2;...)`. You can include fields from different tables `(table 1::field A;table 2::field B...)`.

$$\textbf{Variance} = \frac{\mathbf{x_1^2 + x_2^2 + \ldots + x_n^2}}{\mathbf{n - 1}} - \frac{\mathbf{(x_1 + x_2 + \ldots + x_n)^2}}{\mathbf{n(n - 1)}}$$

Examples

A portal displays the related values 5, 6, 7, and 8 in `Scores`.

`Variance(table::Scores)` returns **1.66666666...**.

In the following examples:

- Field1 contains two repetitions with values of 1 and 2.
- Field2 contains four repetitions with values of 5, 6, 7, and 8.
- Field3 contains four repetitions with values of 6, 0, 4,and 4.
- Field4 contains one repetition with a value of 3.

`Variance(Field4)` results in an error since the variance of a single value is not defined.

`Variance(Field1;Field2;Field3)` returns **7, 9.33333333...**, **4.5**, **8** if the calculation is a repeating field.

Student example:

Two classes of students take an exam. Class 1 has scores of 70, 71, 70, 74, 75, 73, 72 and Class 2 has scores of 55, 80, 75, 40, 65, 50, 95. The variance for each class is:

Class 1: **3.80952380...**

Class 2: **361.90476190...**

The variance for Class 1 is much lower than the variance for Class 2, because the scores for Class 2 are more spread out.

Related topics

Contents
Functions reference (alphabetical list)

VarianceP

Purpose

Returns the variance of a population represented by a series of non-blank values in `field`.

Format

`VarianceP(field{;field...})`

Parameters

`field` - any related field, repeating field, or set of non-repeating fields; or an expression that returns a field, repeating field, or set of non-repeating fields.

Parameters in curly braces { } are optional.

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

The variance of a population distribution is a measure of how spread out the distribution is. `Field` can be any of the following:

- a repeating field `(repeatingField).`

- a field in matching related records specified by `(table::field)`, whether or not these records appear in a portal.
- several non-repeating fields in a record `(field1;field2;field3...)`.
- corresponding repetitions of repeating fields in a record `(repeatingField1;repeatingField2;repeatingField3)`, if the result is returned in a repeating field with at least the same number of repeats.
- several fields in the first matching record specified by `(table::field1;table::field2;...)`. You can include fields from different tables `(table 1::field A;table 2::field B...)`.

$$\textbf{VarianceP} = \frac{x_1^2 + x_2^2 + \ldots + x_n^2}{n} - \left(\frac{x_1 + x_2 + \ldots + x_n}{n}\right)^2$$

Examples

A portal displays the related values 5, 6, 7, and 8 in Scores.

`VarianceP(table::Scores)` returns **1.25**.

In the following examples:

- Field1 contains two repetitions with values of 1 and 2.
- Field2 contains four repetitions with values of 5, 6, 7, and 8.
- Field3 contains four repetitions with values of 6, 0, 4, and 4.
- Field4 contains one repetition with a value of 3.

`VarianceP(Field4)` results in an error since the variance of a single value is not defined.

`VarianceP(Field1;Field2;Field3)` returns **4.66666666..., 6.22222222..., 2.25, 4** if the calculation is a repeating field.

Student example:

Two classes of students take an exam. Class 1 has scores of 70, 71, 70, 74, 75, 73, 72 and Class 2 has scores of 55, 80, 75, 40, 65, 50, 95. The population variance for each class is:

Class 1: **3.26530612...**

Class 2: **310.20408163...**

The population variance for Class 1 is much lower than the population variance for Class 2 because the scores for Class 1 are more tightly clustered.

Related topics

Contents
Functions reference (alphabetical list)

Date functions

Date functions calculate dates and manipulate date information.

Important To avoid errors when using dates, always use four-digit years.

Note System formats affect the way dates are displayed.

You can use zero (0) and negative numbers as Date function arguments. For example, the following formula returns **5/31/2010**:

```
Date(6;0;2010)
```

Click a function name for details.

This function	Returns
Date	The calendar date for the specified month, day, and year.
Day	A number in the range 1 through 31, representing the day of the month for a specified date.
DayName	A text string that is the full name of the weekday for the specified date.
DayNameJ	A text string that is the full name of the weekday for the specified date in Japanese.
DayOfWeek	A number representing the day of the week the specified date falls on.
DayOfYear	A number equal to the number of days from the beginning of the year of the specified date.
Month	A number in the range 1 through 12, representing the number of the month of the year in which the specified date occurs.
MonthName	The name of the month for the specified date.
MonthNameJ	The name of the month in Japanese for the specified date.
WeekOfYear	The number of weeks after January 1 of the year of the specified date.
WeekOfYearFiscal	A number between 1 and 53 representing the week containing a specified date, figured according to the specified starting day.
Year	A number representing the year in which the specified date occurs.
YearName	The Japanese year name of the specified date, provided in the specified format.

Date

Purpose

Returns the calendar date for `month`, `day`, and `year`.

Format

```
Date(month;day;year)
```

Parameters

`month` - the month of the year (a one-digit or two-digit number; see note).

`day` - the day of the month (a one-digit or two-digit number; see note).

`year` - the year (four digits between 0001 and 4000. For example, 2010 but not 10).

Important The order of the parameters in the `Date` function is always Month, Day, Year, no matter what operating system or FileMaker Pro date formats you are using.

Data type returned

date

Originated in

FileMaker Pro 6.0 or earlier

Description

The format of the result depends on the date format that was in use when the database file was created. In the United States, dates are generally in the format MM/DD/YYYY. You can change the date format in your operating system.

You can change how the date is displayed by assigning a different date format to the field in Layout mode. Changing the formatting in this way only affects the way the data is displayed, not how it is stored.

Important To avoid errors when using dates, always use four-digit years.

Note If you type a month greater than 12 or a day greater than the number of days in a month, FileMaker Pro adds the extra days or months to the result. The date function also allows zero and negative numbers as parameters. Decimal numbers are truncated to integers.

Examples

`Date(10;10;2010)` returns **10/10/2010**.

`Date(13;1;2010)` returns **1/1/2010** (one month after December 1, 2009).

`Date(6;0;2010)` returns **5/31/2010** (one day before June 1, 2010).

`Date(6;-2;2010)` returns **5/29/2010** (three days before June 1, 2010).

Related topics

Contents
Functions reference (alphabetical list)

Day

Purpose

Returns a number in the range 1 through 31, representing the day of the month on which `date` occurs.

Format

```
Day(date)
```

Parameters

`date` - any calendar date

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Use `Day`, for example, to identify the day of the month on which payments are due.

Important To avoid errors when using dates, always use four-digit years.

Examples

`Day(“5/15/2010”)` returns **15**. This example assumes that the system date format is MM/DD/YYYY.

`Day(DateSold)` returns the day of the month stored in DateSold.

`If(Day(Get(CurrentDate))= 15 and Month(Get(CurrentDate))=3;“Beware the Ides of March”;“”)` displays the text **Beware the Ides of March** only when the day of the month returned by `Get(CurrentDate)` is 15 and the month returned by `Get(CurrentDate)` is 3; otherwise it displays nothing.

Related topics

Contents
Functions reference (alphabetical list)

DayName

Purpose

Returns a text string that is the full name of the weekday for `date`.

Format

```
DayName(date)
```

Parameters

`date` - any calendar date

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`DayName(Date(10;5;2010))` returns **Tuesday**.

`DayName(ProjectDue)` returns **Tuesday** when ProjectDue is 10/5/2010.

`DayName("10/5/2010")` returns **Tuesday**.

`"Return your selection by " & DayName(DueDate)` displays the text **Return your selection by** followed by the name of the day stored in DueDate.

Important To avoid errors when using dates, always use four-digit years.

Related topics

Contents
Functions reference (alphabetical list)

DayNameJ

Purpose

Returns a text string in Japanese that is the full name of the weekday for `date`.

Format

`DayNameJ(date)`

Parameters

`date` - any calendar date

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`DayNameJ(Date(4;2;2008))` returns **金曜日**

Important To avoid errors when using dates, always use four-digit years.

Contents
Functions reference (alphabetical list)

DayOfWeek

Purpose

Returns a number representing the day of the week that `date` falls on.

Format

`DayOfWeek(date)`

Parameters

`date` - any calendar date

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

The number 1 represents Sunday, 2 represents Monday, 3 represents Tuesday, and so on. For example, you can find out on what day of the week a holiday occurs.

Important To avoid errors when using dates, always use four-digit years.

Examples

`DayOfWeek("10/6/2010")` returns **4**.

`DayOfWeek(Date(10;7;2010))` returns **5**.

`DayOfWeek(ProjectDue)` returns **3** when the date in ProjectDue is 10/5/2010.

Related topics

Contents
Functions reference (alphabetical list)

DayOfYear

Purpose

Returns a number equal to the number of days from the beginning of the year of `date`.

Format

`DayOfYear(date)`

Parameters

`date` - any calendar date

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Examples

`DayOfYear(Billing Date)` returns **32**, when Billing Date is 2/1/2010.

The following formulas return the total number of days in the current year:

```
DayOfYear(Date(12;31;Year(Get(CurrentDate))))
```

```
DayOfYear(Date(1;1;Year(Get(CurrentDate)) + 1) -1)
```

Important To avoid errors when using dates, always use four-digit years.

Contents
Functions reference (alphabetical list)

Month

Purpose

Returns a number in the range 1 through 12, representing the number of the month of the year in which `date` occurs.

Format

```
Month(date)
```

Parameters

`date` - any calendar date

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Examples

`Month("3/19/2010")` returns **3**. This example assumes that the operating system date format is set to MM/DD/YYYY.

`Month(Payment)` returns **3**, where Payment contains March 19, 2010. (The Payment field must be of type date.)

`"Bill Due by: " & Date(Month(DateSold) + 1;Day(DateSold);Year(DateSold))` returns **Bill Due by:** followed by a value that is one month later than DateSold.

Important To avoid errors when using dates, always use four-digit years.

Contents
Functions reference (alphabetical list)

MonthName

Purpose

Returns the full name of the month for `date`.

Format

`MonthName(date)`

Parameters

`date` - any calendar date

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`MonthName("6/6/2010")` returns **June**.

`"Payment due by the end of: " & MonthName(Date(Month(InvoiceDate) + 1;Day(InvoiceDate);Year(InvoiceDate)))` returns **Payment due by the end of May**, where InvoiceDate is 4/4/2010.

`"Payment for: " & MonthName(Date(Month(Payment) + 1;Day(Payment);Year(Payment)))` returns **Payment for:** followed by the name of the month that is one past the month of the last payment.

Important To avoid errors when using dates, always use four-digit years.

Related topics

Contents
Functions reference (alphabetical list)

MonthNameJ

Purpose

Returns the name of the month of `date` in Japanese.

Format

`MonthNameJ(date)`

Parameters

`date` - any calendar date

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`MonthNameJ("6/6/2010")` returns 6 月

Important To avoid errors when using dates, always use four-digit years.

Related topics

Contents
Functions reference (alphabetical list)

WeekOfYear

Purpose

Returns the number of weeks after January 1 of the year of `date`.

Format

`WeekOfYear(date)`

Parameters

`date` - any calendar date

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Fractions of weeks occurring at the beginning or end of the year count as full weeks, so the `WeekOfYear` function returns values 1 through 54.

Important To avoid errors when using dates, always use four-digit years.

`WeekOfYear("1/1/2010")` returns **1**.

`WeekOfYear(ProjectDue)` returns **6**, when ProjectDue is 2/4/2010.

Related topics

Contents
Functions reference (alphabetical list)

WeekOfYearFiscal

Purpose

Returns a number between 1 and 53 representing the week containing `date`, figured according to `startingDay`.

Format

`WeekOfYearFiscal(date;startingDay)`

Parameters

`date` - any calendar date

`startingDay` - any number between 1 and 7, where 1 represents Sunday

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

`startingDay` indicates which day is considered the first day of the week.

The first week of the year is the first week that contains four or more days of that year. For example, if you select 1 (Sunday) as the starting day, then January 1 must be on Sunday, Monday, Tuesday, or Wednesday for that week to be the first week of the fiscal year. If you select 2 (Monday) as the starting day, then January 1 must be on Monday, Tuesday, Wednesday, or Thursday for that week to be the first week of the fiscal year.

It is possible, using this function, that dates in a particular year will be returned as the 53rd week of the previous year. For example, if in 2008 you selected Sunday (1) as the starting date, then January 1, 2, or 3 in 2009 would occur in week 53 of fiscal year 2008 (in 2009, January 1 is on a Thursday). The first day of fiscal year 2009 would be on Sunday, January 4, because you selected Sunday (1) as the starting day.

Important To avoid errors when using dates, always use four-digit years.

`WeekOfYearFiscal(Date(1;2;2008);1)` returns **53**.

`WeekOfYearFiscal(Date(1;7;2008);1)` returns **1**.

`WeekOfYearFiscal(Date(1;1;2009);5)` returns **1**.

Related topics

Contents
Functions reference (alphabetical list)

Year

Purpose

Returns a number representing the year in which `date` occurs.

Format

`Year(date)`

Parameters

`date` - any calendar date

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

You can, for example, extract the year from a field containing the date an item was sold.

Important To avoid errors when using dates, always use four-digit years.

`Year(DateSold)` returns the year stored in DateSold.

`Year("5/5/2010")` returns **2010**.

`Year(Date(Month(Get(CurrentDate)) + 48;Day(Get(CurrentDate));Year(Get(CurrentDate))))` returns the year that is 48 months from today's date.

Related topics

Contents
Functions reference (alphabetical list)

YearName

Purpose

Returns the Japanese year name of `date`, provided in the specified format.

Format

`YearName(date;format)`

Parameters

`date` - any calendar date

`format` - a number (0, 1, or 2) that describes the display format

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

If the value for `format` is blank or other than 0, 1, or 2, then 0 is used.

0 - 明治8 (Meiji 8), 大正8 (Taisho 8), 昭和8 (Showa 8), 平成8 (Heisei 8), 西暦xxxx (Seireki xxxx [before 1868.9.8])

1 - 明8 (Mei 8), 大8 (Tai 8), 昭8 (Sho 8), 平 8 (Hei 8), (西)xxxx (Sei xxxx [before 1868.9.8])

2 - M8, T8, S8, H8, A.D.xxxx (before 1868.9.8)

Name of Emperor in 0 = Long, 1 = Abbreviated, 2 = 2 byte Roman. Seireki is returned when date is before listed emperors.

Examples

`YearName(DateField;0)` Returns 平成20 when DateField contains 7/15/2008.

Related topics

Contents

Functions reference (alphabetical list)

Design functions

Design functions return information about the structure of open database files. For example, you could determine the names of all the layouts or fields in an open database file.

Note FileMaker Pro limits the information returned by a design function, according to the privilege set in effect when the function evaluates a database file.

Design function parameters can be any of the following:

- filenames such as “Customer” or literal text such as "Jack"
- layouts such as `layoutName`
- other functions such as `Left(text;number)`

Important Literal text parameters such as filenames and layout names must be enclosed in quotation marks. Use quotation marks around field names to indicate the literal string is the parameter (omit quotation marks to indicate the value stored in the field is the parameter). You can use spaces before or after the parentheses that enclose parameters, but spaces are not necessary. Use a semicolon between parameters when a function requires more than one parameter.

Click a function name for details.

This function	Returns
DatabaseNames	A list of the names of all database files open on the computer (including files opened as a client), separated by carriage returns.
FieldBounds	The location of each side of the specified field and its rotation in degrees.
FieldComment	The specified field’s comment.
FieldIDs	A list of all field IDs in the specified database file and layout, separated by carriage returns.
FieldNames	A list of the names of all fields on the specified layout, separated by carriage returns.
FieldRepetitions	The number of repetitions of the specified field as it is formatted on the specified layout (which could be different from the number of repetitions specified when the field was defined), and the orientation of the field repetitions (horizontal or vertical) on the layout.
FieldStyle	The formatting applied to the specified field on the specified layout.
FieldType	Information about the specified field.
GetNextSerialValue	The next serial number for the specified field in the specified database file.
LayoutIDs	A list of all layout IDs in the specified database file, separated by carriage returns.
LayoutNames	A list of the names of all layouts in the specified database file, separated by carriage returns.
LayoutObjectNames	A list of the names of all named layout objects, separated by carriage returns.
RelationInfo	A list of four values for each relationship directly related to the specified table.
ScriptIDs	A list of all script IDs in the specified database file, separated by carriage returns.
ScriptNames	A list of the names of all scripts in the specified database file, separated by carriage returns.
TableIDs	A list of all table IDs in the specified database file, separated by carriage returns.

This function	Returns
TableNames	A list of the names of all defined tables in the specified database file, separated by carriage returns.
ValueListIDs	A list of all value list IDs in the specified database file, separated by carriage returns.
ValueListItems	A list of the values in the specified value list, separated by carriage returns.
ValueListNames	A list of the names of all value lists in the specified database file, separated by carriage returns.
WindowNames	A list of the names of open windows in the specified database file.

DatabaseNames

Purpose

Returns a list of the names of all database files open on the computer, separated by carriage returns.

Format

`DatabaseNames`

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

The names returned do not include file extensions.

Note If your database is hosted on another computer, `DatabaseNames` returns a list of the names of local client and remote database files open only on the client computer.

Examples

To determine whether Customers is one of the files currently open, use the `DatabaseNames` function with the `FilterValues` function in the formula:

```
FilterValues( DatabaseNames;"Customers")
```

If the formula returns any text value, then Customers is open.

If you want to know how many files with the same name are open, use the `DatabaseNames` function with the `PatternCount` function in the formula:

```
PatternCount(FilterValues(DatabaseNames;"Customers");"Customers")
```

This will tell you how many files named Customers are open.

Related topics

Contents
Functions reference (alphabetical list)

FieldBounds

Purpose

Returns in a non-repeating text field the location in pixels of each side of `fieldName` and its rotation in degrees on `layoutName` in the fileName file.

Format

```
FieldBounds(fileName;layoutName;fieldName)
```

Parameters

`fileName` - the name of an open database file (local or remote).

`layoutName` - the name of a layout in the specified database file.

`fieldName` - the name of a field on the specified layout.

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

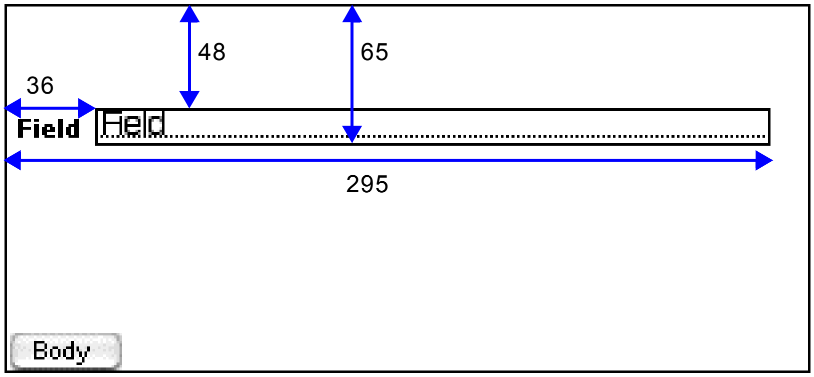
Description

The location returned is measured from the top left corner of the layout (regardless of printer margins) and is specified in this order: position of left field boundary, position of top field boundary, position of right field boundary, position of bottom field boundary, degree of rotation (measured in a counter-clockwise direction; 0 degrees for unrotated).

Note Your layout begins where your margins end. Because field boundaries are measured from the left side and top of the layout, boundaries returned by `FieldBounds` never change unless you move or re-size a field.

Examples

`FieldBounds(“Customers”;“Layout #1”;“Field”)` returns **36 48 295 65 0** in the example below. Notice that all parameters are enclosed in quotation marks.



Related topics

[Contents]
[Functions reference (alphabetical list)]

FieldComment

Purpose

Returns the specified field’s comment.

Format

`FieldComment(fileName;fieldName)`

Parameters

`fileName` - the name of an open database file (local or remote).

`fieldName` - the name of a field in the specified database file.

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

The field name must be in the form `tablename::fieldname` to specify a field that exists in a table different from the current table.

Examples

`FieldComment("Customers"; "Phone Number")` returns **“Customer's home telephone number”** if it was entered as a comment for the Phone Number field.

`FieldComment("Customers"; "Accounts::Current Balance")` returns **“Customer's current balance**” if it was entered as a comment for the Current Balance field in the Accounts table.

Related topics

Contents
Functions reference (alphabetical list)

FieldIDs

Purpose

Returns a list of all field IDs in `fileName` and `layoutName`, separated by carriage returns.

Format

`FieldIDs(fileName;layoutName)`

Parameters

`fileName` - the name of an open database file (local or remote).

`layoutName` - the name of a layout or table in the specified database file.

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

Related fields are returned as **TableID::RelatedFieldID**.

For example, **12::4**, where **12** is the ID of the table and **4** is the ID of the related field.

If `layoutName` is empty, then the field IDs of the default table will be returned.

Examples

`FieldIDs(“Customers”;””)` returns IDs of all unique fields in the default table of Customers.

`FieldIDs(“Customers”;”Layout#5”)` returns IDs of all unique fields, including related fields, on Layout#5 in Customers.

Related topics

Contents
Functions reference (alphabetical list)

FieldNames

Purpose

Returns a list of the names of all fields on `layoutName`, in `fileName` file, separated by carriage returns.

Format

`FieldNames(fileName;layoutName)`

Parameters

`fileName` - the name of an open database file (local or remote).

`layoutName` - the name of a layout or table in the specified database file.

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

Related fields are displayed in `tablename::fieldname` format.

If `layoutName` isn't specified, then the field names of the first table created (the "default table") will be returned.

Note If `FieldNames` returns a question mark (?) or the name of only one field, go to the Specify Calculation dialog box and make sure **Calculation result is** text. Also, you can increase the size of the field on the layout to show more field names.

Examples

`FieldNames("Customers";"")` returns a list of all the fields in the default table of the Customers database file.

`FieldNames("Customers";"Data Entry")` returns a list of all the fields, including related fields, in the Customers database file that appear on the Data Entry layout.

Related topics

Contents
Functions reference (alphabetical list)

FieldRepetitions

Purpose

Returns the number of repetitions of the repeating field `fieldName` as it is currently formatted on `layoutName` (which could be different from the number of repetitions when the field was defined), and the orientation of the field repetitions (horizontal or vertical) on the layout.

Format

```
FieldRepetitions(fileName;layoutName;fieldName)
```

Parameters

`fileName` - the name of an open database file (local or remote).

`layoutName` - the name of a layout in the specified database file.

`fieldName` - the name of a field on the specified layout.

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

If `fieldName` isn't a repeating field, it returns **1 vertical**.

Examples

`FieldRepetitions("Customers";"Data Entry";"Business Phone")` returns **3 vertical** if the Business Phone field is defined as a repeating field with five repetitions but is formatted to only show three repetitions in a vertical orientation on the Data Entry layout.

FieldStyle

Purpose

Returns the field formatting applied to `fieldName` on `layoutName` in the `fileName` file.

Format

```
FieldStyle(fileName;layoutName;fieldName)
```

Parameters

`fileName` - the name of an open database file (local or remote).

`layoutName` - the name of a layout in the specified database file.

`fieldName` - the name of a field on the specified layout.

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

If the field has a value list associated with it, the `FieldStyle` function also returns the name of the value list.

- A standard field returns **Standard.**
- A standard field with a vertical scroll bar returns **Scrolling.**
- A drop-down list returns **Popuplist.**
- A pop-up menu returns **Popupmenu.**
- A checkbox returns **Checkbox.**
- A radio button returns **RadioButton.**
- A drop-down calendar returns **Calendar**.

Examples

On the Data Entry layout in the Customers database file, `FieldStyle("Customers";"Data Entry";"Current Customer")` returns **RadioButton Yes/No List** when the Current Customer field is formatted as a radio button and is associated with the value list named Yes/No List.

Related topics

Contents
Functions reference (alphabetical list)

FieldType

Purpose

Returns information about `fieldName`.

Format

```
FieldType(fileName;fieldName)
```

Parameters

`fileName` - the name of an open database file (local or remote).

`fieldName` - the name of a field in the specified database file.

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

Field names must be in the format `tablename::fieldname` to specify a field that exists in a table different from the current table. The result has four values separated by spaces:

- The first value is either Standard, StoredCalc, Summary, UnstoredCalc, or Global.
- The second value is the field type: text, number, date, time, timestamp, or container.
- The third value is Indexed or Unindexed.
- The fourth value is the maximum number of repetitions defined for the field (if the field isn't defined as a repeating field, this value is 1).

Examples

`FieldType("Customers";"Phone Number")` returns **Standard Text Unindexed 3** when, in the Customers database file, the Phone Number field is defined as a text field that repeats a maximum of three times and the storage options are left unchanged. (Most fields are indexed when a find is performed in that field.)

`FieldType("Customers";"Current Balance")` returns **StoredCalc Number Indexed 1** when, in the Customers database file, the Current Balance field is defined as a stored, numeric calculation field that is indexed.

`FieldType("Customers";"Today's Date")` returns **Global Date Unindexed 1** when, in the Customers database file, the Today's Date field is defined as a global field of type date. Global fields are never indexed.

Related topics

Contents
Functions reference (alphabetical list)

GetNextSerialValue

Purpose

Returns the next serial number of `fieldName` in `fileName`.

Format

```
GetNextSerialValue(fileName;fieldName)
```

Parameters

`fileName` - the name of an open database file (local or remote).

`fieldName` - the name of the field whose next serial number you want to determine.

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

Field names must be fully qualified in the format `tablename::fieldname` to specify a field that exists in a table different from the current table.

Examples

`GetNextSerialValue("Customers";"CustID")` returns the next serial number for the CustID field.

Related topics

Contents
Functions reference (alphabetical list)

LayoutIDs

Purpose

Returns a list of all layout IDs in `fileName`, separated by carriage returns.

Format

`LayoutIDs(fileName)`

Parameters

`fileName` - the name of an open database file (local or remote).

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`LayoutIDs("Customers")` returns a list of all the layout IDs in the Customers database file.

Related topics

Contents
Functions reference (alphabetical list)

LayoutNames

Purpose

Returns a list of the names of all layouts in `fileName`, separated by carriage returns.

Format

```
LayoutNames(fileName)
```

Parameters

`fileName` - the name of an open database file (local or remote).

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`LayoutNames("Customers")` returns a list of all the layouts in the Customers database file.

Related topics

Contents
Functions reference (alphabetical list)

LayoutObjectNames

Purpose

Returns a list of the names of all named objects on `layoutName` in `fileName`, separated by carriage returns.

Format

```
LayoutObjectNames(fileName;layoutName)
```

Parameters

`fileName` - the name of an open database file (local or remote).

`layoutName` - the name of a layout in the specified database file.

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 8.5

Description

Layout objects without object names are not returned. If `layoutName` isn't specified, then no object names are returned.

Named tab controls, grouped objects, and portal objects that contain other named objects are followed by a list of those named objects enclosed in angle brackets (<>). The angle brackets are shown even if there are no named objects contained within the named tab controls, grouped objects, or portal objects.

Examples

`LayoutObjectNames ("Customers";"Data Entry")` returns a list of named objects in the Customers database file that appear on the Data Entry layout.

Related topics

Contents
Functions reference (alphabetical list)

RelationInfo

Purpose

Returns a list of four values for each relationship directly related to `tableName`.

Format

```
RelationInfo(fileName;tableName)
```

Parameters

`fileName` - the name of an open database file (local or remote).

`tableName` - the name of a table in the specified database file.

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

Values in a list are separated by carriage returns, and lists are separated by two carriage returns. For each additional relationship connected to `tableName`, an additional list of four values is output.

The four values are:

- `Source:` Data Source Name of the database table connected to `tableName`.
- `Table:` the name of the table connected to `tableName`.
- `Options:` the options that were set in the right side of the Edit Relationship dialog box when the relationship was defined. This line is blank if the following options are not set; otherwise these options are separated by spaces.
  - Delete, if **Delete related records in this table when a record is deleted in the other table** is selected in the right side of the Edit Relationship dialog box.
  - Create, if **Allow creation of records in this table via this relationship** is selected in the right side of the Edit Relationship dialog box.
  - Sorted, if **Sort records** is selected in the right side of the Edit Relationship dialog box.
- `Relationships:` a list of the defined relationships, one per line. Field names are fully qualified, for example, `TableName::Field Name`.

Examples

A database file called Human Resources has three tables: Company, Employees, and Addresses. `Company::Company ID` is connected to `Employees::Company ID`, `Employees::Employee ID` is connected to `Addresses::Employee ID` and `Employees::DateOfHire` is connected to `Addresses::DateMovedIn`.

The relationships have the following criteria:

- You can create records in all tables.
- You cannot delete records in all tables.
- A sort was specified for the Addresses table for the Employees<-->Addresses relationship.

`RelationInfo("Human Resources";"Employees")` returns:

Source: Human Resources

Table: Company

Options: Create

Company::Company ID = Employees::Company ID

Source: Human Resources

Table: Addresses

Options: Create Sorted

Addresses::Employee ID = Employees::Employee ID

Addresses::DateMovedIn >= Employees::DateOfHire

Related topics

Contents
Functions reference (alphabetical list)

ScriptIDs

Purpose

Returns a list of all script IDs in `fileName`, separated by carriage returns.

Format

`ScriptIDs(fileName)`

Parameters

`fileName` - the name of an open database file (local or remote).

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`ScriptIDs(“Customers”)` returns a list of all the script IDs in the Customers database file.

Related topics

Contents
Functions reference (alphabetical list)

ScriptNames

Purpose

Returns a list of the names of all scripts in `fileName`, separated by carriage returns.

Format

`ScriptNames(fileName)`

Parameters

`fileName` - the name of an open database file (local or remote).

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`ScriptNames(“Customers”)` returns a list of all the scripts in the Customers database file.

Related topics

Contents
Functions reference (alphabetical list)

TableIDs

Purpose

Returns a list of all table IDs in `fileName`, separated by carriage returns.

Format

`TableIDs(fileName)`

Parameters

`fileName` - the name of an open database file (local or remote).

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

Each table ID is unique. Also, the ID is independent of when you create each table: the first table could have the smallest, middle, or largest value.

Examples

`TableIDs(“University Database”)` returns

1065089

1065090

for the University Database database file if two tables have been defined for the file.

Related topics

Contents
Functions reference (alphabetical list)

TableNames

Purpose

Returns a list of all table occurrences in the relationships graph for `fileName`, separated by carriage returns.

Format

`TableNames(fileName)`

Parameters

`fileName` - the name of an open database file (local or remote).

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`TableNames("University Database")` returns table occurrences

Teachers

Coaches

for the University Database database file if a Teachers table and a Coaches table have been defined for the file.

Related topics

Contents
Functions reference (alphabetical list)

ValueListIDs

Purpose

Returns a list of all value list IDs in `fileName`, separated by carriage returns.

Format

`ValueListIDs(fileName)`

Parameters

`fileName` - the name of an open database file (local or remote).

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`ValueListIDs("Customers")` returns a list of all the value list IDs in the Customers database file.

Related topics

Contents
Functions reference (alphabetical list)

ValueListItems

Purpose

Returns a list of the values in `valuelist`, separated by carriage returns.

Format

`ValueListItems(fileName;valuelist)`

Parameters

`fileName` - the name of an open database file (local or remote).

`valuelist` - the name of a value list in the specified database file.

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`ValueListItems("Customers";"Code")` returns a list of all the items in the Code value list in the Customers database file.

Related topics

Contents
Functions reference (alphabetical list)

ValueListNames

Purpose

Returns a list of the names of all value lists in `fileName`, separated by carriage returns.

Format

```
ValueListNames(fileName)
```

Parameters

`fileName` - the name of an open database file (local or remote).

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`ValueListNames("Customers")` returns a list of all the value list names in the Customers database file.

Related topics

Contents
Functions reference (alphabetical list)

WindowNames

Purpose

Returns a list of the names of windows that are currently open.

Format

```
WindowNames{(fileName)}
```

Parameters

`{fileName}` - the name of an open database file (local or remote).

Parameters in curly braces { } are optional.

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

Use the optional `fileName` parameter to only return windows that are based on the specified file. The window could be visible, hidden, or minimized. The order of the names in the list matches the current stacking order of the windows. The visible windows are listed first, then the minimized windows, and then the hidden windows. If there are no databases or windows open, an empty string is returned.

Note Even if you close a file, it may remain open as a hidden file if the window of any other file is displaying data from that file. (For example, another window may be displaying related data from the file you attempted to close.) FileMaker Pro will close the file when you close all the dependent windows.

Examples

`WindowNames` returns **Customers** and **Invoices** separated by a carriage return when those windows are currently open.

`WindowNames("contacts")` returns a list of windows that are based on the contacts database file.

Related topics

Contents
Functions reference (alphabetical list)

External functions

Use external functions to access FileMaker Pro plug-ins. Plug-ins add features to FileMaker Pro.

External functions are only available if FileMaker Pro plug-ins are installed and enabled on your computer. If no FileMaker Pro plug-ins are installed, you see only the generic external function definition in the Specify Calculation dialog box:

External (nameOfFunction; parameter)

Plug-ins written for version 7.0 and later

Each plug-in defines its own functions and parameters. See the documentation that came with the plug-in for each function's usage.

Plug-ins written for version 6.0 and earlier

These plug-ins are still supported and continue to use the External function to access the plug-in's functions. The first parameter is the name of the plug-in function to execute and the second is a parameter that is passed to that function. See the documentation that came with the plug-in for each function's usage.

This function	Does this
External	Enables access to FileMaker Pro plug-ins written for versions of FileMaker Pro prior to 7.0.

External

Purpose

Accesses plug-ins created for versions of FileMaker Pro prior to 7.0 and uses the syntax `External("function name", parameter)`, where `function name` is in quotes and is the name of an external function.

Format

```
External(nameOfFunction;parameter)
```

Parameters

`nameOfFunction` - the name of the external function

`parameter` - the parameter(s) required by the external function. A parameter is required, even if it's only 0.

Data type returned

Depends on the external function

Originated in

FileMaker Pro 6.0 or earlier

Description

Plug-ins created for FileMaker Pro version 7.0 and later do not use the `External(“function name”, parameter)` syntax. For more information, see External functions and the FILEMAKER PRO ADVANCED DEVELOPMENT GUIDE included with FileMaker Pro Advanced.

Related topics

Contents
Functions reference (alphabetical list)

Financial functions

Financial functions calculate financial information, such as net present value and payments. For example, you can calculate the monthly payments required to buy a car at a certain loan rate using the `PMT` function.

Click a function name for details.

This function	Returns
FV	The future value of an initial investment, based on a constant interest rate and payment amount for the number of periods in months.
NPV	The net present value of a series of unequal payments made at regular intervals, assuming a fixed rate per interval.
PMT	The payment required by the term, interest rate, and principal.
PV	The present value of a series of equal payments made at regular intervals (periods), assuming a fixed interest rate per interval.

FV

Purpose

Returns the future value (`FV`) of an initial investment, based on a constant `interestRate` and `payment` amount for the number of `periods` in months.

Format

```
FV(payment;interestRate;periods)
```

Parameters

`payment` - payment to be made per period

`interestRate` - interest rate per period

`periods` - number of periods

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Use this function to calculate `FV`. For example, you can calculate how much you'll earn on an investment in which you pay $50 a month for 60 months at a 6 percent annual interest rate.

Notes

- When `interestRate` is 0, this function returns the result of `payment * periods`.
- The `FV` function doesn't account for the present value of your investment, and it assumes that payment is made at the end of each period.

$$\mathbf{FV} = \mathbf{payment} * \frac{(\mathbf{1} + \mathbf{interestRate})^{\mathbf{periods}} - \mathbf{1}}{\mathbf{interestRate}}$$

Examples

`FV(50;.11/12;5 * 12)` returns **3975.90398429....**

`FV(2000;.12;30) + 5000 * (.12 + 1) ^ 30` returns **632464.97928640....**

`FV(500;.11/5;60)` returns **61141.65130790....**

To set the decimal precision of the returned value, enclose the current formulas with the `Round` function. For example, `Round(Current Formula;2).`

Related topics

Contents
Functions reference (alphabetical list)

NPV

Purpose

Returns the net present value (`NPV`) of a series of unequal `payments` made at regular intervals, assuming a fixed `interestRate` per interval.

Format

`NPV(payment;interestRate)`

Parameters

`payment` - a repeating field containing unequal payment amounts, or an expression that returns a reference to one.

`interestRate` - interest rate.

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Use this function to calculate `NPV`. For example, if someone borrows money from you and pays you back in unequal amounts over a period of several years, you can use the `NPV` function to calculate the result.

$$\mathbf{NPV} = \frac{\mathbf{loan\ amount}}{\mathbf{1} + \mathbf{interestRate}} + \frac{\mathbf{first\ payment}}{(\mathbf{1} + \mathbf{interestRate})^{\mathbf{2}}} + \frac{\mathbf{second\ payment}}{(\mathbf{1} + \mathbf{interestRate})^{\mathbf{3}}} + \ldots + \frac{\mathbf{n^{th}\ payment}}{(\mathbf{1} + \mathbf{interestRate})^{\mathbf{n+1}}}$$

Examples

`NPV(Loan;.05)` returns **156.91277445...**, when the repeating field, Loan, contains -2000 (the initial payment), 600, 300, 500, 700, and 400. The result (156.91277445...) is the actual profit in today’s dollars that will be realized from this transaction.

`NPV(Amounts;.10)` returns **16758.35604870...**, when the repeating field, Amounts, contains -5000 (the initial investment), 10,000, 0, 10,000, and 10,000.

If you want each return value to return 2 decimal places, surround the current formulas with the correct `Round` function: `Round(Current Formula;2)`.

Related topics

Contents
Functions reference (alphabetical list)

PMT

Purpose

Returns the payment (`PMT`) required by the `term`, `interestRate`, and `principal`.

Format

`PMT(principal;interestRate;term)`

Parameters

`principal` - principal amount.

`interestRate` - interest rate. If the interest rate is annual, divide the rate by 12.

`term` - length of time, expressed in number of months.

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Use this function to calculate `PMT`.

$$\mathbf{PMT} = \mathbf{payment} \Big/ \left(\frac{\mathbf{1} - (\mathbf{1} + \mathbf{interestRate})^{-\mathbf{periods}}}{\mathbf{interestRate}} \right)$$

Examples

In the following example, the `PMT` function calculates payments for purchasing a sports car costing $21,000, at an annual rate of 6.9% over 48 monthly payments.

`PMT(21000;.069/12;48)` returns the payment amount **$501.90**.

`PMT(Cost;.13;Years)` returns a payment amount, based on the purchase value stored in Cost, at a 13 percent rate, over the duration stored in Years.

`"Your payment will be " & PMT(150000;.13/12;Months) & "."` returns **Your payment will be**, followed by the payment amount, based on a total cost of $150,000, at a 13 percent annual percentage rate, over the duration stored in Months.

Related topics

Contents
Functions reference (alphabetical list)

PV

Purpose

Returns the present value (`PV`) of a series of equal `payments` made at regular intervals (`periods`), assuming a fixed `interestRate` per interval.

Format

```
PV(payment;interestRate;periods)
```

Parameters

`payment` - payment amount to be made per period. Type a negative number for money you pay and a positive number for money you receive.

`interestRate` - interest rate per period.

`periods` - number of periods (intervals between payments).

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Use this function to calculate `PV`.

$$\mathbf{PV} = \mathbf{payment} * \frac{\mathbf{1} - (\mathbf{1} + \mathbf{interestRate})^{-\mathbf{periods}}}{\mathbf{interestRate}}$$

Note When `interestRate` is 0, this function returns the result of `payment * periods`.

Examples

Your cousin borrowed $2,000 from you, offering to pay you back $500 a year for five years, for a total of $2,500 at the end of five years. If inflation was 5 percent annually, with the following entry you could find out what those payments are worth with the `PV` function.

`PV(500;.05;5)` returns **2164.73833531...**.

If you want the return value to return two decimal places, enclose the formula with the correct `Round` function: `Round(Current Formula;2)`.

Related topics

Contents

Functions reference (alphabetical list)

Get functions

Use Get functions in scripts for error checking and prevention, or to capture information about the status of a database file or elements in it, or an action being performed.

Many Get functions return information that changes on a regular basis. For example, when the Get(CurrentTime) function is placed in a stored calculation field, the time will only update when a new record is created. If the calculation has other fields in it, but the calculation result still returns the current time, then the stored calculation result will only update when those other fields have been modified in the current record. If either of these calculations are unstored, the time will update as needed. For performance reasons, making a calculation field unstored is not always the best idea. Get functions are best used in a script where the status information from a Get function is up to date at the moment that the calculation is run.

To access the list of Get functions, in the Specify Calculation dialog box, choose **View all functions by type** or **View Get functions**. When you choose **View all functions by name**, you see only Get(flag).

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Click a function name for details.

This function	Returns
Get(AccountExtendedPrivileges)	A list of keywords for the enabled extended privileges, separated by carriage returns. The list that is returned is based on the account used to open the database file.
Get(AccountName)	The authenticated account name being used for the active database file.
Get(AccountPrivilegeSetName)	The name of the privilege set that is being used by the account used to open the database file.
Get(ActiveFieldContents)	The contents of the field that has the focus.
Get(ActiveFieldName)	The name of the field that has the focus.
Get(ActiveFieldTableName)	The name of the table that contains the active field (the field that has the focus).
Get(ActiveLayoutObjectName)	The name of the active layout object in the calculation's active window.
Get(ActiveModifierKeys)	A number representing the keyboard modifier keys (for example, Shift) that are being pressed.
Get(ActivePortalRowNumber)	The number of the portal row containing the focus.
Get(ActiveRepetitionNumber)	A number representing the active repetition of a repeating field (the repetition that has the focus).
Get(ActiveSelectionSize)	A number representing how many characters are selected.
Get(ActiveSelectionStart)	A number representing the starting character of the selected text.
Get(AllowAbortState)	A Boolean value representing the current state of `Allow user abort` script step.
Get(AllowToolbarState)	A Boolean value representing whether toolbars are allowed to be visible.
Get(ApplicationLanguage)	Text representing the current application language (for example, English).

This function	Returns
Get(ApplicationVersion)	Text representing the FileMaker Pro application version.
Get(CalculationRepetitionNumber)	A number representing the repetition of the calculation field that is currently being calculated.
Get(CurrentDate)	The current date according to the system calendar.
Get(CurrentExtendedPrivileges)	A list of keywords for the enabled extended privileges of the account that is being used to evaluate the calculation.
Get(CurrentHostTimestamp)	The host's current date and time (to the nearest second) according to the system clock.
Get(CurrentPrivilegeSetName)	The name of the privilege set that is being used to evaluate this calculation in the database.
Get(CurrentTime)	The current time (to the nearest second) according to the system clock.
Get(CurrentTimestamp)	The current date and time (to the nearest second) according to the system clock.
Get(CustomMenuSetName)	The name of the active custom menu set.
Get(DesktopPath)	The path to the desktop folder for the current user.
Get(DocumentsPath)	The path to the Documents folder for the current user.
Get(DocumentsPathListing)	A list of all the files and folders in the Documents folder returned by the Get(DocumentsPath) function.
Get(ErrorCaptureState)	A Boolean value representing the state of `Error capture` script step.
Get(FileMakerPath)	The path to the folder of the currently running copy of FileMaker Pro.
Get(FileName)	The name of the currently active database file.
Get(FilePath)	The full path indicating the location of the file.
Get(FileSize)	The size (in bytes) of the currently active database file.
Get(FoundCount)	A number that represents the number of records in the current found set.
Get(HighContrastColor)	The name of the current high contrast default color scheme if **Use High Contrast** is selected in the Windows operating system Accessibility Options dialog box.
Get(HighContrastState)	A Boolean value representing the state of the **Use High Contrast** checkbox on the Accessibility Options dialog box.
Get(HostApplicationVersion)	The version of FileMaker Pro or FileMaker Server running on the computer that is hosting the current database.
Get(HostIPAddress)	The IP address of the host machine for the current database.
Get(HostName)	The registered name of the computer that is hosting the database file.
Get(LastError)	A number representing the error, if any, in the execution of the most recently executed script step.
Get(LastMessageChoice)	A number corresponding to the button clicked in an alert message displayed by the Show Custom Dialog script step.

This function	Returns
Get(LastODBCError)	A string that shows the error state published by ODBC standards, based on ISO/IEF standards.
Get(LayoutAccess)	A number corresponding to the layout access privileges assigned through the Manage Security dialog box.
Get(LayoutCount)	The total number of layouts in the database file.
Get(LayoutName)	The name of the layout currently displayed.
Get(LayoutNumber)	The number of the layout currently displayed, according to the list in the Manage Layouts dialog box.
Get(LayoutTableName)	The name of the table that the layout is displaying records from.
Get(LayoutViewState)	Information about how the database file is being viewed.
Get(MultiUserState)	A number representing the current multi-user state of the database file.
Get(NetworkProtocol)	The name of the network protocol that FileMaker Pro is using on this machine.
Get(PageNumber)	A number representing the current page being printed or previewed.
Get(PreferencesPath)	The path to the preferences folder for the current user.
Get(PrinterName)	A string identifying the default printer name.
Get(QuickFindText)	The text that was entered in the Quick Find box.
Get(RecordAccess)	A number indicating the access privileges of the current record.
Get(RecordID)	The unique ID number of the current record.
Get(RecordModificationCount)	The total number of times changes to the current record have been committed.
Get(RecordNumber)	The number of the current record in the current found set.
Get(RecordOpenCount)	The total number of open records in the current found set that haven’t yet been saved.
Get(RecordOpenState)	A number representing the state of the current record.
Get(RequestCount)	The total number of find requests currently defined for the current table.
Get(RequestOmitState)	A Boolean value representing the state of the **Omit** checkbox in Find mode.
Get(ScreenDepth)	The number of bits needed to represent the color or shade of gray of a pixel on the main screen.
Get(ScreenHeight)	The number of pixels displayed vertically on the screen in which the window of the current file is open.
Get(ScreenWidth)	The number of pixels displayed horizontally on the screen in which the window of the current file is open.
Get(ScriptName)	The name of the script currently running (or paused).
Get(ScriptParameter)	The script parameter passed into the current script.
Get(ScriptResult)	The script result from a performed subscript.
Get(SortState)	A number value representing the current sort state.

This function	Returns
Get(StatusAreaState)	A number representing whether the status toolbar is hidden, visible, visible and locked, or hidden and locked.
Get(SystemDrive)	The drive letter (Windows) or the volume name (Mac OS) where the currently running operating system is located.
Get(SystemIPAddress)	The IP addresses of all the machines connected to a NIC (Network Interface Controller) card.
Get(SystemLanguage)	The language currently set on the current system.
Get(SystemNICAddress)	The hardware addresses of all the Network Interface Controller cards connected to the machine.
Get(SystemPlatform)	A number indicating the current platform.
Get(SystemVersion)	The version of the operating system of the machine on which the function is executed.
Get(TemporaryPath)	The path to the current user's temporary folder used by FileMaker Pro.
Get(TextRulerVisible)	A Boolean value representing whether or not the text ruler is visible.
Get(TotalRecordCount)	The total number of records in the current table.
Get(TriggerKeystroke)	A string containing the characters that activated an OnObjectKeystroke or OnLayoutKeystroke script trigger.
Get(TriggerModifierKeys)	The state of the keyboard modifier keys as they were when the script trigger was activated.
Get(UserCount)	The number of users who are currently accessing the file.
Get(UserName)	The name of the FileMaker Pro user, as specified in the **General** tab of the Preferences dialog box.
Get(UseSystemFormatsState)	A Boolean value representing the state of the **Use System Formats** menu command.
Get(WindowContentHeight)	A number representing the height, in pixels, of the content area.
Get(WindowContentWidth)	A number representing the width, in pixels, of the content area.
Get(WindowDesktopHeight)	A number representing the height, in pixels, of the desktop space.
Get(WindowDesktopWidth)	A number representing the width, in pixels, of the desktop space.
Get(WindowHeight)	A number representing the height, in pixels, of the current window of the file in which the calculation is defined.
Get(WindowLeft)	A number representing the horizontal distance, in pixels, of the outer edge of the current window relative to the left-most edge of the screen.
Get(WindowMode)	A number representing whether FileMaker Pro is in Browse mode, Find mode, Preview mode, or printing when the function is evaluated.
Get(WindowName)	The name of the current window of the file in which the calculation is defined.
Get(WindowTop)	A number representing the vertical distance, in pixels, of the outer edge of the current window relative to the bottom edge of the menu bar.

This function	Returns
Get(WindowVisible)	A Boolean value representing whether or not the current window is visible.
Get(WindowWidth)	A number representing the width, in pixels, of the current window of the file in which the calculation is defined.
Get(WindowZoomLevel)	The zoom level of the current window.

Get functions example

This script uses the function `Get(CurrentDate)` to check each record in the found set to see if an account is past due. If an account is past due, the script shows a message and prompts the user to click a button labeled Ignore, Send Letter, or Send Mail (set up through the Show Custom Dialog script step). The script captures the user's response using `Get(LastMessageChoice)`. Then, based on the user's response, the script performs an action: it cancels the rest of the script, prints a "payment is late" letter, or sends email to the associated account.

```
Go to Layout ["LayoutName"]
Go to Record/Request/Page [First]
Loop
  If [DatabaseName::Date < Get(CurrentDate) - 30]
    Show Custom Dialog ["30 or more days late"]
    If [Get(LastMessageChoice) = 1]
      Halt Script
    Else If [Get(LastMessageChoice) = 2]
      Go to Layout ["Late Notice"]
      Print []
    Else
      Send Mail [To: DatabaseName::Client; Subject: "Late Notice";
Message: "Your account is past due."]
    End If
  End If
  Go to Record/Request/Page [Exit after last, Next]
End Loop
Go to Layout [original layout]
```

Get(AccountExtendedPrivileges)

Purpose

Returns a list of keywords for the enabled extended privileges, separated by carriage returns. The list that is returned is based on the account used to open the database file.

Format

```
Get(AccountExtendedPrivileges)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 11.0

Description

Extended privileges are additional access rights assigned to an account's privilege set.

Returns an empty list if a user doesn't have extended privileges assigned to the account used to open the database file.

Notes

- If you specify the context for the current calculation, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

An account uses a privilege set that includes the extended privilege of Access Via Instant Web Publishing (keyword "fmiwp").

`Position(Get(AccountExtendedPrivileges); "fmiwp"; 1; 1)` returns a value greater than 0.

Related topics

Contents
Functions reference (alphabetical list)

Get(AccountName)

Purpose

Returns the name of the authenticated account being used by the current user of the database file.

Format

```
Get(AccountName)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

Use this function for FileMaker authentication. If a user is using the default Admin account, `Get(AccountName)` returns **Admin**. If a user is using the FileMaker Pro guest account then **[Guest]** will be returned.

For external server authentication, `Get(AccountName)` returns the name of the authenticated account being used by the current user of the database file, not the group the user belongs to (the group name appears in the **Account** list when you define accounts and privileges in FileMaker Pro). If an individual belongs to more than one group (account), the first group name listed when you choose **View By Authentication Order** while defining accounts and privileges determines access for the user.

Notes

- If you specify the context for the current calculation, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **Marketing** when Marketing is the name of the account that was used to log in to the database file.

Related topics

Get(UserName) function
Contents
Functions reference (alphabetical list)

Get(AccountPrivilegeSetName)

Purpose

Returns the name of the privilege set that is being used by the account used to open the database.

Format

```
Get(AccountPrivilegeSetName)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 11.0

Description

If a user is using the default Admin account and you haven't modified access privileges for the database file, this function returns **[Full Access]**.

Notes

- If you specify the context for the current calculation, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

For current user Administrator, `Get(AccountPrivilegeSetName)` might return **[Full Access]**.

For a user in the sales department, `Get(AccountPrivilegeSetName)` might return **[Data Entry Only]**.

Related topics

Contents
Functions reference (alphabetical list)

Get(ActiveFieldContents)

Purpose

Returns the contents of the field that has the focus.

Format

`Get(ActiveFieldContents)`

Parameters

None

Data type returned

text, number, date, time, timestamp, container

Originated in

FileMaker Pro 6.0 or earlier

Description

When the focus is in a repeating field, this function returns the contents of the active repetition. The result type of the active field depends upon the data type of the active field and the result type assigned to the `Get(ActiveFieldContents)` calculation function.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **SomeShop** when the focus is in the Name field, and that field contains the data SomeShop.

This type of calculation is most useful if used in a script when you want to examine data in different fields as the script proceeds.

Related topics

Contents
Functions reference (alphabetical list)

Get(ActiveFieldName)

Purpose

Returns the name of the field that has the focus.

Format

```
Get(ActiveFieldName)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **Country**, when the focus is in the Country field.

Related topics

Contents
Functions reference (alphabetical list)

Get(ActiveFieldTableName)

Purpose

Returns the name of the table that contains the active field (the field that has the focus).

Format

```
Get(ActiveFieldTableName)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

If there is no active field, this function returns an empty string.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

There are two fields, Teachers::Name and Coaches::Name, on the current layout. Creating a script that returns the result of `Get(ActiveFieldTableName)` to a third field will return **Teachers** when the script is performed after clicking in the Teachers::Name field, or will return **Coaches** after clicking in the Coaches::Name field.

Related topics

Contents
Functions reference (alphabetical list)

Get(ActiveLayoutObjectName)

Purpose

Returns the object name of the active layout object in the calculation's current window; otherwise, returns an empty string.

Format

`Get(ActiveLayoutObjectName)`

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 8.5

Description

For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

There is a named button on the current layout called `cancelButton`. When the focus is on the button, `Get(ActiveLayoutObjectName)` returns **cancelButton**.

Related topics

Contents
Functions reference (alphabetical list)

Get(ActiveModifierKeys)

Purpose

Returns a number representing the keyboard modifier keys (for example, Control+Shift) that are being pressed.

Format

`Get(ActiveModifierKeys)`

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

The number returned is calculated by summing numbers representing each modifier key being pressed. The values assigned to the keys are:

- Shift = 1
- Caps Lock = 2
- Ctrl (Windows) and Control (Mac OS) = 4
- Alt (Windows) and Option (Mac OS) = 8
- Command (Mac OS) = 16

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns the number **9** when Shift+Alt is pressed on a computer running Windows.

You could use this function in a script that includes a custom dialog box script step (with an **OK** and **Cancel** button) to perform some special action if the user presses the Alt (or Option) key while clicking **OK**.

Related topics

Contents
Functions reference (alphabetical list)

Get(ActivePortalRowNumber)

Purpose

Returns the number of the portal row containing the focus.

Format

```
Get(ActivePortalRowNumber)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

When no portal row contains the focus, this function returns **0**. If there are multiple windows open in the current database file, each window can have its own portal row number value, but results are returned for only the foreground window. If a user navigates to a portal without selecting a specific portal row and without making an object active within a specific portal row, Get(ActivePortalRowNumber) returns row 0 rather than row 1.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **5** when the fifth row of a portal has the focus, or when the focus is in a field in the fifth portal row.

Related topics

Contents
Functions reference (alphabetical list)

Get(ActiveRepetitionNumber)

Purpose

Returns a number representing the active repetition of a repeating field (the repetition that has the focus).

Format

```
Get(ActiveRepetitionNumber)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

The first repetition returns **1**. If the current field isn't a repeating field, this function returns **1**.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **5** when the focus is in the fifth repetition of a repeating field.

Related topics

Contents
Functions reference (alphabetical list)

Get(ActiveSelectionSize)

Purpose

Returns a number representing how many characters are selected.

Format

```
Get(ActiveSelectionSize)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

Returns **0** if there is no selection.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **4** when 4 characters are selected.

Related topics

Contents
Functions reference (alphabetical list)

Get(ActiveSelectionStart)

Purpose

Returns a number representing the starting character of the selected text.

Format

```
Get(ActiveSelectionStart)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

Returns the cursor's current position if no text is selected.

If there are multiple windows open in the current database file, a result is returned for only the foreground window.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **5** when the selection starts at character 5.

Related topics

Contents
Functions reference (alphabetical list)

Get(AllowAbortState)

Purpose

Returns **1** if `Allow user abort` script step is on; otherwise, returns **0**.

Format

```
Get(AllowAbortState)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **1** if `Allow user abort` script step is on.

Related topics

Contents
Functions reference (alphabetical list)

Get(AllowToolbarState)

Purpose

Returns a Boolean value representing whether toolbars are allowed to be visible.

Format

`Get(AllowToolbarState)`

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 8.0

Description

Returns **1** if toolbars are allowed; otherwise, returns **0**. The Allow Toolbars script step sets the toolbar state.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **1** if toolbars are allowed to be visible.

Related topics

Contents
Functions reference (alphabetical list)

Get(ApplicationLanguage)

Purpose

Returns text representing the current application language.

Format

```
Get(ApplicationLanguage)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

The text that is returned by this function is in the English language.

FileMaker Pro supports:

- English
- French
- Italian
- German
- Swedish
- Spanish
- Dutch
- Japanese

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **English** when the current application language is English.

Related topics

Contents
Functions reference (alphabetical list)

Get(ApplicationVersion)

Purpose

Returns text representing the FileMaker application and version.

Format

```
Get(ApplicationVersion)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

Returns:

- **Pro *version*** for FileMaker Pro
- **ProAdvanced *version*** for FileMaker Pro Advanced
- **Runtime *version*** for FileMaker Runtime
- **FileMaker Web Publishing *version*** for FileMaker Web Client
- **Web Publishing Engine *version*** for FileMaker Server Web Client
- **xDBC *version*** for xDBC Client
- **Server *version*** for FileMaker Server

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **Pro 11.0v1** in FileMaker Pro 11.0v1.

Related topics

Contents
Functions reference (alphabetical list)

Get(CalculationRepetitionNumber)

Purpose

Returns a number representing the repetition of the calculation field that is currently being calculated.

Format

```
Get(CalculationRepetitionNumber)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

The first repetition returned is 1. If the current field isn't a repeating field, the function returns **1**.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **5** when FileMaker Pro is calculating the fifth repetition of a repeating field.

Related topics

Contents
Functions reference (alphabetical list)

Get(CurrentDate)

Purpose

Returns the current date according to the system calendar.

Format

```
Get(CurrentDate)
```

Parameters

None

Data type returned

date

Originated in

FileMaker Pro 6.0 or earlier

Description

The format of the result of this function varies based on the date format that was in use when the database file was created. In the United States, dates are generally in the format MM/DD/YYYY. You can change the date and time formats in your operating system.

If the result is displayed in a field, it is formatted according to the date format of the field in the current layout.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Important To avoid errors when using dates, always use four-digit years.

Examples

Returns **2/2/2010** when the system date is set to February 2, 2010.

Related topics

Contents
Functions reference (alphabetical list)

Get(CurrentExtendedPrivileges)

Purpose

Returns a list of keywords, separated by carriage returns, for the enabled extended privileges of the account that is being used to evaluate this calculation.

Format

Format

`Get(CurrentExtendedPrivileges)`

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

Extended privileges are additional access rights assigned to an account's privilege set.

Returns an empty list if a user doesn't have extended privileges assigned for the current database file.

Notes

- If you specify the context for the current calculation, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

An account uses a privilege set that includes the extended privilege of Access Via Instant Web Publishing (keyword "fmiwp").

`Position(Get(CurrentExtendedPrivileges); "fmiwp"; 1; 1)` returns a value greater than 0.

Related topics

Contents
Functions reference (alphabetical list)

Get(CurrentHostTimestamp)

Purpose

Returns the host's current date and time (to the nearest second) according to the system clock.

Format

`Get(CurrentHostTimestamp)`

Parameters

None

Data type returned

timestamp

Originated in

FileMaker Pro 7.0

Description

The format of the value returned is determined by the database file's settings. You can use your client system's settings in the operating system.

Notes

- The client machine and host machine may be in different times zones so `Get(CurrentHostTimestamp)` and `Get(CurrentTimestamp)` may return different date/time values. Also, the current date and time are characteristics of the host system, but the format of the date and time is a characteristic of the database file.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Important For users who are connected over a network, the `Get(CurrentHostTimestamp)` function can affect the performance of the database file. For example, if you use the function in an unstored calculation field, and the field is visible in a list view, each display of the field requires an additional network access. Stored calculation fields are a better use of the function. For example, if you automatically enter a timestamp for each newly created record using a stored calculation field, you minimize network access.

Examples

Returns **1/1/2010 11:30:01 AM** when the system clock shows January 1, 2010 11:30:01 AM on the host machine.

Related topics

Contents

Functions reference (alphabetical list)

Get(CurrentPrivilegeSetName)

Purpose

Returns the name of the privilege set that is being used to evaluate this calculation in the database file.

Format

```
Get(CurrentPrivilegeSetName)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

If a user is using the default Admin account and you haven't modified access privileges for the database file, this function returns **[Full Access]**.

Notes

- If you specify the context for the current calculation, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.
- If you select the **Run script with full access privileges** script option, this function returns **[Full Access]**.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

For current user Administrator, `Get(CurrentPrivilegeSetName)` might return **[Full Access]**.

For a user in the sales department, `Get(CurrentPrivilegeSetName)` might return **[Data Entry Only]**.

Related topics

Contents

Functions reference (alphabetical list)

Get(CurrentTime)

Purpose

Returns `CurrentTime` (to the nearest second) according to the system clock.

Format

```
Get(CurrentTime)
```

Parameters

None

Data type returned

time

Originated in

FileMaker Pro 6.0 or earlier

Description

The format of the value returned is determined by the operating system settings.

Note In client/server and peer-to-peer environments, `Get(CurrentTimestamp)` evaluates the status of the client machine running the script (not the host machine). For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **11:30:00** when the system clock shows 11:30:00.

Related topics

Contents
Functions reference (alphabetical list)

Get(CurrentTimestamp)

Purpose

Returns the current date and time (to the nearest second) according to the system clock.

Format

```
Get(CurrentTimestamp)
```

Parameters

None

Data type returned

timestamp

Originated in

FileMaker Pro 7.0

Description

The format of the value returned is determined by the operating system settings.

Note In client/server and peer-to-peer environments, `Get(CurrentTimestamp)` evaluates the status of the client machine running the script (not the host machine). For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **1/1/2010 11:30:00 AM** when the system clock shows January 1, 2010 11:30:00.

Related topics

Contents
Functions reference (alphabetical list)

Get(CustomMenuSetName)

Purpose

Returns the name of the active custom menu set.

Format

```
Get(CustomMenuSetName)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 8.0

Description

If the active menu set isn't a custom menu set, an empty string is returned.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **Custom Menu Set #1** when this custom menu set is active.

Returns an empty string when the **[Standard FileMaker Menus]** menu set is active.

Related topics

Contents
Functions reference (alphabetical list)

Get(DesktopPath)

Purpose

Returns the path to the desktop folder for the current user.

Format

```
Get(DesktopPath)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 8.0

Description

In Windows, the path format is /Drive:/Documents and Settings/UserName/Desktop/.

In the Mac OS, the path format is /DriveName/Users/UserName/Desktop/.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **/C:/Documents and Settings/John Smith/Desktop/** for a user named John Smith in Windows.

Returns **/MacintoshHD/Users/John Smith/Desktop/** for a user named John Smith in the Mac OS.

Related topics

Contents
Functions reference (alphabetical list)

Get(DocumentsPath)

Purpose

Returns the path to the Documents folder for the current user.

Format

`Get(DocumentsPath)`

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 8.0

Description

In Windows XP, the path format is /Drive:/Documents and Settings/UserName/My Documents/.

In Windows Vista, the path format is /Drive:/Users/UserName/Documents/.

In the Mac OS, the path format is /DriveName/Users/UserName/Documents/.

When running on FileMaker Server, `Get(DocumentsPath)` returns the location of the Documents folder, which is in the same folder as the server's Backups, Databases, and Scripts folders. The Documents folder is used as a shared location that scripts from different sessions or other processes on the machine can use to import or export files.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

For FileMaker Pro, for a user named John Smith, returns:

/C:/Documents and Settings/JohnSmith/My Documents in Windows XP

/C:/Users/John Smith/Documents/ in Windows Vista.

/MacintoshHD/Users/John Smith/Documents in the Mac OS

For FileMaker Server, returns:

/C:/Program Files/FileMaker/FileMaker Server/Data/Documents in Windows Vista.

/MacintoshHD/Library/FileMaker Server/Data/Documents in the Mac OS

Related topics

Contents
Functions reference (alphabetical list)

Get(DocumentsPathListing)

Purpose

Returns a list of all the files and folders in the Documents folder returned by the Get(DocumentsPath) function.

Format

```
Get(DocumentsPathListing)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 10.0

Description

Each pathname in the Documents folder is listed separated by a line break. Files and folders are named according to FileMaker Pro naming conventions.

Use `Get(DocumentsPathListing)` with the Import Records script step and Export Records script step to determine if a file exists in the Documents folder before using the Open File script step to open the file. `Get(DocumentsPathListing)` ensures that multiple scripts can safely read from and write to the same FileMaker Pro database.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

For FileMaker Server, returns the following pathnames:

In Windows Vista:

/C:/Program Files/FileMaker/FileMaker Server/Data/Documents/lastmonthsales.xls
/C:/Program Files/FileMaker/FileMaker Server/Data/Documents/forecastsales.xls
/C:/Program Files/FileMaker/FileMaker Server/Data/Documents/SAP
/C:/Program Files/FileMaker/FileMaker Server/Data/Documents/SAP/sap001.txt
/C:/Program Files/FileMaker/FileMaker Server/Data/Documents/SAP/sap002.txt

In the Mac OS:

/MacintoshHD//Library/FileMaker Server/Data/Documents/lastmonthsales.xls
/MacintoshHD//Library/FileMaker Server/Data/Documents/forecastsales.xls
/MacintoshHD//Library/FileMaker Server/Data/Documents/SAP
/MacintoshHD//Library/FileMaker Server/Data/Documents/SAP/sap001.txt
/MacintoshHD//Library/FileMaker Server/Data/Documents/SAP/sap002.txt

Related topics

Contents
Functions reference (alphabetical list)
Get(DocumentsPath)

Get(ErrorCaptureState)

Purpose

Returns **1** if the `Set Error capture` script step is on; otherwise, returns **0**.

Format

```
Get(ErrorCaptureState)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **1** if the `Set Error capture` script step is on.

Related topics

Contents
Functions reference (alphabetical list)

Get(FileMakerPath)

Purpose

Returns the path to the folder of the currently running copy of FileMaker Pro.

Format

```
Get(FileMakerPath)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 8.0

Description

In Windows, the path format is /Drive:/Program Files/FileMaker/FileMaker Pro 11.0/.

In the Mac OS, the path format is /DriveName/Applications/FileMaker Pro 11.0/.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **/C:/Program Files/FileMaker/FileMaker Pro 11.0/** in Windows.

Returns **/MacintoshHD/Applications/FileMaker Pro 11.0/** in the Mac OS.

Related topics

Contents
Functions reference (alphabetical list)

Get(FileName)

Purpose

Returns the name of the currently active database file, without the filename extension.

Format

```
Get(FileName)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

If the current calculation is stored and you specify its context, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **Contacts** when Contacts is the active file.

Related topics

Contents
Functions reference (alphabetical list)

Get(FilePath)

Purpose

Returns the full path indicating the location of the currently active database file.

Format

```
Get(FilePath)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

In Windows, the full path is file:/drive:/folder/filename for local files. For remote files, the full path is file://volume/folder/filename.

In the Mac OS, the full path is file:/volume/folder/filename for local and remote files.

If you specify the context for the current calculation, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **file:/driveletter:/databaseName** for local files in Windows.

Returns **file://volumename/myfoldername/databaseName** for remote files in Windows.

Returns **file:/path/databaseName** for local and remote files in the Mac OS.

Returns **fmnet:/networkaddress/databaseName** for FileMaker Pro networked files.

Related topics

Contents
Functions reference (alphabetical list)

Get(FileSize)

Purpose

Returns the size (in bytes) of the currently active database file.

Format

```
Get(FileSize)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

If the current calculation is stored and you specify its context, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **15000** when the current file size is 15000 bytes.

Related topics

Contents
Functions reference (alphabetical list)

Get(FoundCount)

Purpose

Returns a number that represents the number of records in the current found set.

Format

```
Get(FoundCount)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

If there are multiple windows open in the current database file, each window can have its own found count value, but results are returned for only the foreground window.

If you specify the context for the current calculation, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **7** when there are 7 records in the current found set.

Related topics

Contents
Functions reference (alphabetical list)

Get(HighContrastColor)

Purpose

Returns the name of the current high contrast default color scheme if **Use High Contrast** is selected in the Windows OS Accessibility Options dialog box.

Format

```
Get(HighContrastColor)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

Returns an empty value (null) if **Use High Contrast** is unavailable, inactive, or if this function is used on the Mac OS.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **High Contrast White** when the Windows Vista color scheme is set to High Contrast White.

Related topics

Contents
Functions reference (alphabetical list)

Get(HighContrastState)

Purpose

Returns a Boolean value representing the state of the **Use High Contrast** option in the Accessibility Options dialog box (Windows XP) or the **Choose a High Contrast** color scheme setting in the Ease of Access dialog box (Windows Vista).

Format

```
Get(HighContrastState)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Returns:

- **0** if **Use High Contrast** is unavailable, inactive, or if the function is used on the Mac OS.
- **1** if **Use High Contrast** is available and active.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Related topics

Contents
Functions reference (alphabetical list)

Get(HostApplicationVersion)

Purpose

Returns the version of FileMaker Pro or FileMaker Server running on the computer that is hosting the current database.

Format

```
Get(HostApplicationVersion)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 9.0

Description

Displays a value when used with the same or higher version of FileMaker Pro or FileMaker Server software. If the current database is not shared or hosted, this function returns an empty string. Also returns an empty string when used from the host computer itself.

Examples

Returns **Pro 11.0v1** when the host computer is running FileMaker Pro 11 version 1.

Returns **ProAdvanced 11.0v1** when the host computer is running FileMaker Pro 11 Advanced version 1.

Returns **Server 11.0v1** when the host computer is running FileMaker Server 11 version 1.

Related topics

Contents
Functions reference (alphabetical list)

Get(HostIPAddress)

Purpose

Returns the IP address of the host machine for the current database.

Format

```
Get(HostIPAddress)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 8.0

Description

Returns the IP address of the host machine for the current database. If the current database isn't being hosted, an empty string is returned.

If IPv4 and IPv6 addresses are available for remotely hosted files, the address is returned in the most common or default format. This might not be the same format that was used when connecting to the host.

If the current calculation is stored and you specify its context, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns one of the following when the current database is being hosted:

- IPv4: **14.156.13.121**
- IPv6: **[2001:0DB8:85A3:08D3:1319:8A2E:0370:7334]**

Note If the host machine has both IPv4 and IPv6 addresses, Get(HostIPAddress) returns only the IP address that the client used to connect to the host.

Related topics

Contents
Functions reference (alphabetical list)

Get(HostName)

Purpose

Returns the registered name of the computer that is hosting the database file.

Format

```
Get(HostName)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

On the computer that is hosting the database file:

- Windows XP: Choose **Start** menu > **Control Panel** > **Performance and Maintenance** > **System** > and then click the **Computer Name** tab. **Full computer name** displays the current registered name.
- Windows Vista: Choose **Start** menu > **Control Panel** > **System and Maintenance** > **System**. **Full computer name** displays the current registered name.
- Mac OS: In the Sharing System Preference, **Computer Name** displays the current registered name.

Notes

- If the current calculation is stored and you specify its context, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **Fred Jones** when Fred Jones is the registered name of the host computer in use.

Related topics

Contents
Functions reference (alphabetical list)

Get(LastError)

Purpose

Returns a number representing the error, if any, in the execution of the most recently executed script step.

Format

```
Get(LastError)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Use this function to detect and control the outcome of errors.

Notes

- Mac OS: In FileMaker Pro, if an error occurs while performing an AppleScript from the Manage Scripts feature, the AppleScript error code will be returned.
- For ODBC imports and Execute SQL script steps, if an error occurs while performing a SQL query, returns FileMaker error 1408. For detailed information about the error, use the Get(LastODBCError) function. If there is no information about the error, returns FileMaker error 1409.
- For working with ODBC data sources in the relationships graph, returns FileMaker error 1408.
- Some script triggers allow for the activating command or event to be canceled if the script executed by the script trigger returns a False value. When a command or event is canceled this way, the error code is set to 20.
- When you perform a script that uses this function with control script steps, the control script steps do not clear the last error condition reported by FileMaker Pro.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Tip To create a script that responds to errors without displaying alerts, use this function with the Set Error Capture script step with the **On** option.

Examples

Returns **0** when the most recent script step executed successfully.

Returns **401** when no records are found after the Perform Find script step has been executed.

Related topics

Contents
Functions reference (alphabetical list)

Get(LastMessageChoice)

Purpose

Returns a number corresponding to the button clicked in an alert message that is displayed by the Show Custom Dialog script step.

Format

```
Get(LastMessageChoice)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Returns:

- **1** for the first button (by default, labeled OK)
- **2** for the second button (by default, labeled Cancel)
- **3** for the third button

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Related topics

Contents
Functions reference (alphabetical list)

Get(LastODBCError)

Purpose

Returns a string that shows the error state published by ODBC standards, based on ISO/IEF standards.

Format

`Get(LastODBCError)`

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

- For ODBC imports and Execute SQL script steps, returns a detailed, textual ODBC error message.
- For working with ODBC data sources in the relationships graph, returns the readable error string that is generated by the ODBC driver.

Notes

- You can set the Set Error Capture state to “on” to suppress the error messages. You can also use `Get(LastError` to get generic errors.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

For ODBC imports and Execute SQL script steps, returns **[DataDirect][Macintosh ODBC Driver Manager] Data source name not found and no default driver specified (−1)** when a data source name wasn't found and the driver wasn't specified.

Related topics

Contents
Functions reference (alphabetical list)

Get(LayoutAccess)

Purpose

Returns a number based on record access privileges available through the current layout.

Format

```
Get(LayoutAccess)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

You assign the privileges in the Custom Layout Privileges dialog box.

Returns:

- **0** if the custom layout privileges of an account's privilege set allow **no access** to **Records via this layout**
- **1** if the custom layout privileges of an account's privilege set allow **view only** access to **Records via this layout**. If the database is opened with read-only access, FileMaker Pro returns **1** even if the layout has read-write access privileges
- **2** if the custom layout privileges of an account's privilege set allow **modifiable** access to **Records via this layout**

Notes

- `Get(LayoutAccess)` returns information about record access privileges defined for only the current layout. It ignores current record access privileges for all other layouts. To fully check access through a layout, consider the return values of `Get(LayoutAccess)` and the Get(RecordAccess) function.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **1** when the layout allows view-only access to records.

Related topics

Contents
Functions reference (alphabetical list)

Get(LayoutCount)

Purpose

Returns the total number of layouts in the database file.

Format

```
Get(LayoutCount)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **3** when the file has three layouts.

Related topics

Contents
Functions reference (alphabetical list)

Get(LayoutName)

Purpose

Returns the name of the layout currently displayed.

Format

```
Get(LayoutName)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

If there are multiple windows open in the current database file, each window can have its own layout name value, but results are returned for only the foreground window.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **Product List** when the Product List layout is displayed.

Returns **Customer Invoice** when the Customer Invoice layout is displayed.

Related topics

Contents
Functions reference (alphabetical list)

Get(LayoutNumber)

Purpose

Returns the number of the layout currently displayed, according to the list in the Manage Layouts dialog box.

Format

```
Get(LayoutNumber)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

If there are multiple windows open in the current database file, each window can have its own layout number value, but results are returned for only the foreground window.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **3** when the current layout is third in the list of layouts in Manage Layouts.

Related topics

Contents
Functions reference (alphabetical list)

Get(LayoutTableName)

Purpose

Returns the name of the table from which the current layout is displaying records.

Format

```
Get(LayoutTableName)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

If no windows are open, an empty string is returned.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

There are two layouts, Teachers Layout and Coaches Layout, with corresponding tables named Teachers and Coaches in the table Instructors. An unstored calculation of `Get(LayoutTableName)` returns **Teachers** when the current layout is Teachers Layout and returns **Coaches** when the current layout is Coaches Layout.

Related topics

Contents
Functions reference (alphabetical list)

Get(LayoutViewState)

Purpose

Returns a number indicating the currently active database file view.

Format

```
Get(LayoutViewState)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Returns:

- **0** (zero) if the database file is in Form View
- **1** if the database file is in List View
- **2** if the database file is in Table View

If there are multiple windows open in the current database file, each window can have its own layout view state value, but results are returned for only the foreground window.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Related topics

Contents
Functions reference (alphabetical list)

Get(MultiUserState)

Purpose

Returns a number representing the level of sharing for the database file using FileMaker Network.

Format

```
Get(MultiUserState)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Returns:

- **0** when network sharing is off
- **1** when network sharing is on, you're accessing the database file from the host computer, and either all users or a specific group of users (based on their privilege set) have network access to the database file
- **2** when network sharing is on, you're accessing the database file from a client computer, and either all users or a specific group of users (based on their privilege set) have network access to the database file

Notes

- If the current calculation is stored and you specify its context, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **0** when access is denied to other users.

Related topics

Contents
Functions reference (alphabetical list)

Get(NetworkProtocol)

Purpose

Returns the name of the network protocol (TCP/IP) that FileMaker Pro is using on this machine.

Format

```
Get(NetworkProtocol)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **TCP/IP**.

Related topics

Contents
Functions reference (alphabetical list)

Get(PageNumber)

Purpose

Returns a number representing the current page being printed or previewed.

Format

```
Get(PageNumber)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

If nothing is being printed or previewed, **0** is returned.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **4** when page 4 is being printed or previewed.

Related topics

Contents
Functions reference (alphabetical list)

Get(PreferencesPath)

Purpose

Returns the path to the preferences and default options folder for the current user.

Format

```
Get(PreferencesPath)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 8.0

Description

In Windows XP, the path format is /Drive:/Documents and Settings/UserName/Local Settings/Application Data/.

In Windows Vista and Windows 7, the path format is /Drive:/Users/UserName/AppData/Local/.

In Mac OS 10.5 and 10.6, the path format is /DriveName/Users/UserName/Library/Preferences/.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **/C:/Users/John Smith/AppData/Local/** for a user named John Smith in Windows.

Returns **/MacintoshHD/Users/John Smith/Library/Preferences/** for a user named John Smith in the Mac OS.

Related topics

Contents
Functions reference (alphabetical list)

Get(PrinterName)

Purpose

Returns a string identifying the default printer name.

Format

```
Get(PrinterName)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

In Windows, returns a string with each of these entries separated by a comma:

- the printer name
- the driver name
- the name of the printer port

In Mac OS, returns a string with these entries separated by the word **on**:

- the queue name of the printer (if provided)
- the IP address of the printer

If any of this information isn't available, **<Unknown>** is inserted in the result (except for queue name in the Mac OS).

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **HP LaserJet 4, WINSPOOL, LPT1** in Windows.

Returns **24.109.265.43** in the Mac OS.

Related topics

Contents
Functions reference (alphabetical list)

Get(QuickFindText)

Purpose

Returns the text that was entered in the Quick Find box.

Format

```
Get(QuickFindText)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 11.0

Description

Returns the text that was entered the last time quick find was performed.

Examples

Returns **New York** if the last search that was entered in the Quick Find box was for New York.

Related topics

Contents
Functions reference (alphabetical list)

Get(RecordAccess)

Purpose

Returns a number based on the current record's access privileges, assigned through the Custom Record Privileges dialog box.

Format

```
Get(RecordAccess)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Returns:

- **0** if the custom record privileges of an account's privilege set have neither **View** nor **Edit** privileges set to **yes** for the current record
- **1** if the custom record privileges of an account's privilege set have **View** set to **yes** for the current record, or if **View** is set to **limited** and the calculation defined for limited access returns a value of **true**

  Note If both **View** and **Edit** are set to **yes**, `Get(RecordAccess)` returns **2**
- **2** if the custom record privileges of an account's privilege set have **Edit** set to **yes** for the current record, or if **Edit** is set to **limited** and the calculation defined for limited access returns a value of **true**

Notes

- `Get(RecordAccess)` only returns information about the privileges defined for accessing records. It ignores access privileges assigned through individual layouts. To fully check access to a record, consider the return values of the Get(LayoutAccess) function and `Get(RecordAccess)`.
- If you specify the context for the current calculation, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **1** when the record access is view-only.

Related topics

Contents

Functions reference (alphabetical list)

Get(RecordID)

Purpose

Returns the unique ID number of the current record.

Format

`Get(RecordID)`

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

The number returned is a decimal value (an integer) generated by FileMaker Pro when the record is created. It does not change.

Notes

- If the current calculation is stored and you specify its context, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.
- `Get(RecordID)` may not return a consistent value for records in ODBC data sources.

Examples

Returns a unique ID for the current record.

Related topics

Contents

Functions reference (alphabetical list)

Get(RecordModificationCount)

Purpose

Returns the total number of times changes to the current record have been committed.

Format

`Get(RecordModificationCount)`

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

To commit changes, you can, for example:

- click out of all fields (exit the record)
- go to a different record
- enter Find mode

If multiple windows are open, clicking in another window does not commit the record.

Notes

- If the current calculation is stored and you specify its context, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.
- `Get(RecordModificationCount)` returns **NULL** for ODBC data sources.

Examples

Returns **0** if the record has not been modified since it was created.

If changes are made to four fields and all four fields are committed together, the result increments by one. If changes are made to four fields and each change is committed separately, the result increments by four.

Related topics

Contents
Functions reference (alphabetical list)

Get(RecordNumber)

Purpose

Returns the number of the current record in the current found set.

Format

```
Get(RecordNumber)
```

Parameters

None

Originated in

FileMaker Pro 6.0 or earlier

Data type returned

number

Description

The value returned is determined by the relative place of the record in the found set, and it changes depending on the find criteria and the sort order.

Notes

- To return a value that uniquely and permanently identifies a record in this table, use `Get(RecordID)`.
- If you specify the context for the current calculation, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **3** when the current record is the third record in a found set.

Related topics

Contents
Functions reference (alphabetical list)

Get(RecordOpenCount)

Purpose

Returns the total number of open records in the current found set that haven't been saved.

Format

```
Get(RecordOpenCount)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 8.0

Description

If you specify the context for the current calculation, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **4** if there are four open records in the current found set that haven't been saved.

Related topics

Contents
Functions reference (alphabetical list)

Get(RecordOpenState)

Purpose

Returns a number representing the state of the current record.

Format

```
Get(RecordOpenState)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 8.0

Description

Returns:

- **0** for a closed or committed record
- **1** for a new record that hasn't been committed
- **2** for a modified record that hasn't been committed

Notes

- If you specify the context for the current calculation, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **1** if the current record is a new record that hasn't been saved.

Related topics

Contents
Functions reference (alphabetical list)

Get(RequestCount)

Purpose

Returns the total number of find requests defined for the current table.

Format

```
Get(RequestCount)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

If there are multiple windows open in the current database file, then results are returned for only the top-most window of the file in which the calculation is defined.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **5** when there are five find requests defined for the current table.

Related topics

Contents
Functions reference (alphabetical list)

Get(RequestOmitState)

Purpose

Returns a Boolean value representing the state of the **Omit** checkbox in Find mode.

Format

```
Get(RequestOmitState)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 8.0

Description

Returns **1** if the **Omit** checkbox is selected; otherwise, returns **0**.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **1** when the **Omit** checkbox is selected in the current find request.

Related topics

Contents
Functions reference (alphabetical list)

Get(ScreenDepth)

Purpose

Returns the number of bits needed to represent the color or shade of gray of a pixel on the main screen.

Format

```
Get(ScreenDepth)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

A value of 8 represents 256 (equal to 2^8) colors or shades of gray.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **32** on a display showing millions (2^{32}) of colors.

Returns **16** on a display showing thousands (2^{16}) of colors.

Returns **4** on a VGA display.

Returns **1** on a black-and-white display.

Related topics

Contents
Functions reference (alphabetical list)

Get(ScreenHeight)

Purpose

Returns the number of pixels displayed vertically on the screen in which the window of the current file is open.

Format

```
Get(ScreenHeight)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

When the window spans more than one screen, this function uses the screen that contains the largest percentage of the window. If there are multiple windows open in the current database file, each window can have its own screen height value, but results are returned for only the foreground window.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **480** when the screen resolution is set to 640 x 480.

Related topics

Contents
Functions reference (alphabetical list)

Get(ScreenWidth)

Purpose

Returns the number of pixels displayed horizontally on the screen in which the window of the current file is open.

Format

```
Get(ScreenWidth)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

When the window spans more than one screen, this function uses the screen that contains the largest percentage of the window. If there are multiple windows open in the current database file, each window can have its own screen width value, but results are returned for only the foreground window.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **640** when the screen resolution is set to 640 x 480.

Related topics

Contents
Functions reference (alphabetical list)

Get(ScriptName)

Purpose

Returns the name of the script currently running (or paused).

Format

```
Get(ScriptName)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **Print Report** when the Print Report script is running.

Returns **Update Customer** when the Update Customer script is running.

Related topics

Contents
Functions reference (alphabetical list)

Get(ScriptParameter)

Purpose

Returns the script parameter passed into the current script.

Format

```
Get(ScriptParameter)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

Use this function as part of a calculation evaluated within a script.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **Print** when “Print” was the value of the parameter passed into the current script.

The following example shows how to pass named parameters using the `Evaluate`, `Let`, and `Get(ScriptParameter)` functions, allowing access only to variable `“a”` (the example returns **6**):

```
ScriptParameter = "a = 5; b = 10"
```

```
Evaluate("Let ( [" & Get(ScriptParameter) & "]; a + 1 )" )
```

The following example shows how to pass named parameters, allowing access to both variable `“a”` and `“b”`. The simplified first parameter makes the second parameter more complex (the example returns **6, 12**):

```
ScriptParameter = "a = 5; b = 10"
```

```
Evaluate("Let ( [" & Get(ScriptParameter) & "]; a + 1 & \", \" & b + 2 )" )
```

The following example shows how to pass named parameters, while keeping the ability to check the syntax of the second parameter of the `Let` function (the example returns **6, 12**):

```
ScriptParameter = "a = 5; b = 10"
```

```
Let(  [a = Evaluate("Let( [" & Get(ScriptParameter) & "]; a )"),b =
Evaluate("Let( [" & Get(ScriptParameter) & "]; b )")]; a + 1 & ", " & b +
2 )
```

Related topics

Contents
Functions reference (alphabetical list)

Get(ScriptResult)

Purpose

Returns the script result from a performed subscript.

Format

```
Get(ScriptResult)
```

Parameters

None

Data type returned

text, number, date, time, timestamp, container

Originated in

FileMaker Pro 8.0

Description

Use this function as part of a calculation evaluated within a script. If a subscript doesn’t return a result, then the content of the script result will be empty.

Examples

In the following example, the Find Customers script returns the results of a find request when it is called from the Do Reports script. Script Find Customers uses the optional script result of the Exit Script script step. Script Do Reports then uses `Get(ScriptResult)` to determine what other script steps should be performed based on the returned result stored in `Get(ScriptResult)`.

Find Customers

```
Set Error Capture [On]
Perform Find [Restore]
New Record/Request
Exit Script [Result: Get(FoundCount) < 10]
```

Do Reports

```
Perform Script [Find Customers]
If [Get(ScriptResult) = 0]
   Show Custom Dialog ["You have created 10 records already."]
End If
```

Related topics

Contents
Functions reference (alphabetical list)

Get(SortState)

Purpose

Returns a value representing the current sort state.

Format

`Get(SortState)`

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Returns:

- **0** if the records in the active table are not sorted
- **1** if the records in the active table are sorted
- **2** if the records in the active table are partially sorted (semi-sorted)

Each window has its own sort state.

Notes

- When records are imported from another file to a previously found and sorted set, the records in a sorted set may exist in a semi-sorted state. To include the imported records in the sort order, sort the found set after importing.
- If you specify the context for the current calculation, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **1** when the records in the active table are sorted.

Related topics

Contents
Functions reference (alphabetical list)

Get(StatusAreaState)

Purpose

Returns a number indicating the current status toolbar state.

Format

```
Get(StatusAreaState)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Returns:

- **0** (zero) if the status toolbar is hidden
- **1** if the status toolbar is visible
- **2** if the status toolbar is visible and locked
- **3** if the status toolbar is hidden and locked

If there are multiple windows open on the currently active database file, then results are returned for only the active window.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **1**, when the current status toolbar is visible.

Related topics

Contents
Functions reference (alphabetical list)

Get(SystemDrive)

Purpose

Returns the drive letter (Windows) or volume name (Mac OS) where the currently running operating system is located.

Format

```
Get(SystemDrive)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 8.0

Description

For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **/C:/** in Windows when the operating system is on the C: drive.

Returns **/DriveName/** in the Mac OS when the operating system is on a volume named DriveName.

Related topics

Contents
Functions reference (alphabetical list)

Get(SystemIPAddress)

Purpose

Returns a list of the IP addresses of all computers connected to an active NIC (Network Interface Controller) card.

Format

```
Get(SystemIPAddress)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

IP addresses are separated by carriage returns.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Suppose a machine has the following active physical interfaces:

- an Ethernet card not connected to a network with an IP address of 10.10.10.10
- a WiFi interface with an IP address of 192.168.1.1
- a VPN connection with an IP address of 172.172.172.172

The function returns:

192.168.1.1

172.172.172.172

Suppose a machine has the following active physical interfaces:

- an Ethernet card not connected to a network with an IP address of 2001::10
- a WiFi interface with an IP address of 3FFE:FFFF:101::230:6EFF:FE04:D9FF/48
- a VPN connection with an IP address of 2001:0DB8:85A3:08D3:1319:8A2E:0370:7334

The function returns:

3FFE:FFFF:101::230:6EFF:FE04:D9FF/48

2001:0DB8:85A3:08D3:1319:8A2E:0370:7334

Related topics

Contents
Functions reference (alphabetical list)

Get(SystemLanguage)

Purpose

Returns the language currently set on the current system.

Format

```
Get(SystemLanguage)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

The text that is returned is in the English language.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **Japanese** when Japanese is the language currently set on the operating system.

Related topics

Contents
Functions reference (alphabetical list)

Get(SystemNICAddress)

Purpose

Returns a list of the hardware addresses of all NIC (Network Interface Controller) cards connected to the computer.

Format

`Get(SystemNICAddress)`

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

Values in the list returned by this function are separated by carriage returns. The address consists of 6 bytes displayed in hexadecimal separated by colons. In Windows, find this address by typing the command "`ipconfig /All`" in a DOS window. In the Mac OS, find this address under **Network Overview** in the **System Profile** tab under Applications/Utilities/Apple System Profiler.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **00:07:34:4e:c2:0d**, for example.

Related topics

Contents
Functions reference (alphabetical list)

Get(SystemPlatform)

Purpose

Returns a number indicating the current platform.

Format

`Get(SystemPlatform)`

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Returns:

- **-1** if the current platform is PowerPC-based Macs
- **1** if the current platform is Intel-based Macs
- **-2** if the platform is Windows XP, Windows Vista, or Windows 7

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

`Get(SystemPlatform)` returns **–2** when the current platform is a Windows platform.

`Abs(Get(SystemPlatform))` returns **1** when the current platform is Mac OS X.

Related topics

Contents
Functions reference (alphabetical list)

Get(SystemVersion)

Purpose

Returns the version of the current operating system.

Format

`Get(SystemVersion)`

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

Use this function when running a script.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **6.1** for Windows 7.

Returns **6.0** for Windows Vista.

Returns **5.1** for Windows XP (SP 2).

Returns **10.5** for Mac OS X version 10.5.

Returns **10.6** for Mac OS X version 10.6.

Related topics

Contents
Functions reference (alphabetical list)

Get(TemporaryPath)

Purpose

Returns the path to the temporary folder that FileMaker Pro uses for the current user, or the path that FileMaker Server uses on the system.

Format

```
Get(TemporaryPath)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 8.5

Description

The temporary folder name begins with *S*, followed by a number representing the session of the database engine during which the operation took place. Because your operating system controls the location of temporary files, the exact path returned may be different from the examples shown. The actual path returned also depends on which product (FileMaker Pro or FileMaker Server) is executing the function.

In FileMaker Pro, the temporary folder and any files placed in it are deleted when FileMaker Pro is terminated. In FileMaker Server, each schedule runs in its own session; once the schedule is completed, the session terminates and the temporary folder is deleted.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

In Windows, returns:

/%HomeDrive%/Documents and Settings/{user id}/Local Settings/Temp/S<*n*> or

/%UserProfile%/AppData/Local/Temp/S<*n*> or

/%HomeDrive%/WINDOWS/Temp/S<*n*> (Windows XP)

where **%HomeDrive%** is an environment variable that returns the name of your home drive on your hard disk.

%UserProfile% is an environment variable that points to the directory where the profile of the current user is located.

S<*n*> is the name of the folder in which the temporary files are placed (for example, S1); **<*n*>** is a number representing the database engine session during which the operation took place.

In Mac OS X, returns:

/<DriveName>/private/var/folders/<2 characters>/<20 characters>++++TI/Cleanup at Startup/S<*n*>/

where **DriveName** is the name of your hard disk.

S<*n*> is the name of the folder in which the temporary files are placed (for example, S1); **<*n*>** is a number representing the database engine session during which the operation took place.

The location may vary due to different variables on the OS, but should follow a similar pattern.

Related topics

Contents
Functions reference (alphabetical list)

Get(TextRulerVisible)

Purpose

Returns a Boolean value representing whether or not the text ruler is visible.

Format

```
Get(TextRulerVisible)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 8.0

Description

Returns **1** if the text ruler is displayed; otherwise, returns **0**.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **1** when the text ruler is visible.

Related topics

Contents
Functions reference (alphabetical list)

Get(TotalRecordCount)

Purpose

Returns the total number of records in the current table.

Format

```
Get(TotalRecordCount)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

If the current calculation is stored and you specify its context, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **876** when there are 876 records in the current table.

Related topics

Contents
Functions reference (alphabetical list)

Get(TriggerKeystroke)

Purpose

Returns a string containing the characters that activated an OnObjectKestroke or OnLayoutKeystroke script trigger. Multiple characters may be returned when the input comes from an input method editor (IME).

Format

```
Get(TriggerKeystroke)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 10.0

Description

Returns a value when running a script triggered by an OnObjectKeystroke or OnLayoutKeystroke script trigger or running a script called from the triggered script; otherwise returns an empty string.

Examples

The following code displays the text **Processing input...** when a carriage return is entered:

```
If [ Code ( Get(TriggerKeystroke) ) = 13 ]
   Show Custom Dialog [“Processing input...”]
End If
```

Note

For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Related topics

Contents
Functions reference (alphabetical list)

Get(TriggerModifierKeys)

Purpose

Returns the state of the keyboard modifier keys as they were when a script trigger was activated.

Format

```
Get(TriggerModifierKeys)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 10.0

Description

Returns a value only when called from a script activated by a script trigger or from a sub-script called from the triggered script; otherwise returns an empty string.

- See Get(ActiveModifierKeys) for a description of the values assigned to the keyboard modifier keys.
- See the Code function for a list of navigational keys and the codes returned to a script activated by this trigger.

Time might elapse between when the keys that activated a script trigger are pressed and the script asks for information on the modifier keys. Use Get(TriggerKeystroke) and Get(TriggerModifierKeys) to capture the keys that were active when the script trigger was activated. Use Get(ActiveModifierKeys) to capture any current keys being pressed.

Notes

- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.
- Windows: Alt and Control key combinations do not activate script triggers.
- Mac OS: Command key combinations do not activate script triggers.

Examples

- The following example will only display a custom dialog box when lowercase `“a”` is entered:

  ```
  If [Get(TriggerKeystroke)=“a” and Get(TriggerModifierKeys)=0]
     Show Custom Dialog [“You entered \”a\”.”]
  End If
  ```

- The value **9** is returned when Shift-Option is pressed on a computer running the Mac OS. If the Option and Shift keys are pressed on a Mac when a script is triggered, Get(TriggerModifierKeys) returns **9**, regardless of which modifier keys have been pressed between when the trigger was activated and when the script runs.

Related topics

Contents
Functions reference (alphabetical list)

Get(UserCount)

Purpose

Returns the number of clients currently accessing the file.

Format

```
Get(UserCount)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Returns:

- **1** if FileMaker network sharing is turned off
- **1** + the number of clients if FileMaker network sharing is turned on

This function does not count clients accessing the database file via ODBC or JDBC.

Notes

- If you specify the context for the current calculation, this function will be evaluated based on that context; otherwise, it will be evaluated based on the context of the current window.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **5** when there are 4 clients accessing the database file.

Related topics

Contents
Functions reference (alphabetical list)

Get(UserName)

Purpose

Returns the name of the FileMaker Pro user, as specified in the **General** tab of the Preferences dialog box.

Format

`Get(UserName)`

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

The returned name is user-specified.

Important For greater security, use `Get(AccountName)` to track and manage user access: a user cannot change the account name used to log in to a database file.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **Sharon Lloyd** when Sharon Lloyd is the current user.

Related topics

Contents
Functions reference (alphabetical list)

Get(UseSystemFormatsState)

Purpose

Returns a Boolean value representing the state of the **Use System Formats** command in the Format menu.

Format

`Get(UseSystemFormatsState)`

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 8.0

Description

Returns **1** if **Use System Formats** is on; otherwise, returns **0**.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **1** when **Use System Formats** is on.

Related topics

Contents
Functions reference (alphabetical list)

Get(WindowContentHeight)

Purpose

Returns a number representing the height, in pixels, of the FileMaker Pro content area.

Format

```
Get(WindowContentHeight)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

The content area depends on the current size of the active window but doesn't include the title bar, scroll bars, zoom controls, and page margins. The content area is the space inside these controls. It does not include the status toolbar if it is currently showing.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **400** in the Mac OS when the current window height is 437 and the status toolbar isn't showing.

The example below combines `Get(WindowContentHeight)` with `Get(WindowHeight)` to determine the height of the title bar and horizontal scroll bar:

`Get(WindowHeight) - Get(WindowContentHeight)` returns **37** in the Mac OS when the window height is 437 and the status toolbar isn't showing.

Related topics

Contents
Functions reference (alphabetical list)

Get(WindowContentWidth)

Purpose

Returns a number representing the width, in pixels, of the FileMaker Pro content area.

Format

`Get(WindowContentWidth)`

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

The content area depends on the current size of the active window but doesn't include the title bar, scroll bars, zoom controls, or page margins. The content area is the space inside these controls.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **400** in the Mac OS when the current window width is 415.

The example below combines `Get(WindowContentWidth)` with `Get(WindowWidth)` to determine the width of the vertical scroll bar:

`Get(WindowWidth) - Get(WindowContentWidth)` returns **15** in the Mac OS when the window width is 415.

Related topics

Contents
Functions reference (alphabetical list)

Get(WindowDesktopHeight)

Purpose

Returns a number representing the height, in pixels, of the desktop space.

Format

```
Get(WindowDesktopHeight)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

In Windows, the desktop space is the area inside the MDI window (sometimes referred to as the client area). This doesn't include any virtual space available through the scrolling of the MDI window.

In the Mac OS, the desktop space is the area on the main monitor excluding the menu bars. The main monitor is where the menu bar is located.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **956** in Windows when there is a single monitor and its MDI is set to 1280 x 1024.

Returns **1178** in the Mac OS when there is a single monitor and its resolution is set to 1900 x 1200.

Related topics

Contents
Functions reference (alphabetical list)

Get(WindowDesktopWidth)

Purpose

Returns a number representing the width, in pixels, of the desktop space.

Format

```
Get(WindowDesktopWidth)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

In Windows, the desktop space is the space inside the MDI window (sometimes referred to as the client area).

In the Mac OS, the desktop space is the area on the main monitor excluding the menu bars. The main monitor is where the menu bar is located.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **450** in Windows when there is a single monitor and its MDI is set to 500 x 450.

Returns **600** in the Mac OS when there is a single monitor and its resolution is set to 800 x 600.

Related topics

Contents
Functions reference (alphabetical list)

Get(WindowHeight)

Purpose

Returns a number representing the height, in pixels, of the window on which the script is acting (not necessarily the foreground window).

Format

```
Get(WindowHeight)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

The height of the window is calculated from the top to bottom outer edges of the window. This position doesn't include shadows or other effects applied to windows.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

`Get(WindowHeight)` returns **300** when the current window's height is 300 pixels.

Related topics

Contents
Functions reference (alphabetical list)

Get(WindowLeft)

Purpose

Returns a number representing the horizontal distance, in pixels, of the outer edge of the window on which the script is acting (not necessarily the foreground window) relative to the left-most edge of the screen.

Format

`Get(WindowLeft)`

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

The origin of the reference coordinate system is at the left-most corner below the menu bar. A negative value indicates the portion of the left side of the window that is hidden.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **52** when the outer edge of the active window is 52 pixels from the left edge of the screen.

Returns **0** when the active window is 0 pixels from the left edge of the screen.

Related topics

Contents
Functions reference (alphabetical list)

Get(WindowMode)

Purpose

Returns a number representing the mode FileMaker Pro is in at the time the function is evaluated.

Format

```
Get(WindowMode)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Returns:

- **0** for Browse mode
- **1** for Find mode
- **2** for Preview mode
- **3** if printing is in progress
- **4** (FileMaker Pro Advanced) if evaluating the function from the Data Viewer and the current window is in Layout mode

If a script using this function runs while the file is in Layout mode, FileMaker Pro switches to Browse mode and returns **0**. If there are multiple windows open in the current database file, each window can have its own window mode value, but results are returned for only the foreground window.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **2** if the file is in Preview mode when the function is evaluated.

Related topics

[Contents](#)
[Functions reference (alphabetical list)](#)

Get(WindowName)

Purpose

Returns the name of the window on which the script is acting (not necessarily the foreground window).

Format

`Get(WindowName)`

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

Returns an empty string if there is no window.

Notes

- You can set the window name with the Set Window Title script step.
- For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

There are two windows, Teachers and Students, displaying the same layout that includes an unstored calculation Calc containing `Get(WindowName)`. **Teachers** is returned when the Teachers window is refreshed, and **Students** is returned when the Students window is refreshed.

Related topics

[Contents](#)
[Functions reference (alphabetical list)](#)

Get(WindowTop)

Purpose

Returns a number representing the vertical distance, in pixels, of the outer edge of the window on which the script is acting (not necessarily the foreground window) relative to the bottom edge of the menu bar.

Format

```
Get(WindowTop)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

The origin of the reference coordinate system is at the left-most corner below the menu bar. A negative value indicates the portion of the top part of the window that is hidden behind the menu bar.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **52** when the outer edge of the active window is 52 pixels from the menu bar.

Returns **0** when the outer edge of the active window just touches the menu bar.

Related topics

Contents
Functions reference (alphabetical list)

Get(WindowVisible)

Purpose

Returns a number representing whether or not the current window is visible.

Format

```
Get(WindowVisible)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

The current window is the window on which the script is acting (not necessarily the foreground window). Returns **1** if the window is visible. Returns **0** if the window is hidden using the **Hide Window** command. The window can be located outside of the visible screen space and still return **1**.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **1** when the current window is physically visible.

Returns **0** when the current window has been hidden using the Hide Window command in FileMaker Pro.

Related topics

Contents
Functions reference (alphabetical list)

Get(WindowWidth)

Purpose

Returns a number representing the width, in pixels, of the window on which the script is acting (not necessarily the foreground window).

Format

```
Get(WindowWidth)
```

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

The width of the window is calculated from the left-most to right-most outer edge of the window. This position doesn't include shadows or other effects applied to windows.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **300** when the current window is 300 pixels wide.

Related topics

Contents
Functions reference (alphabetical list)

Get(WindowZoomLevel)

Purpose

Returns the zoom percentage of the current window.

Format

```
Get(WindowZoomLevel)
```

Parameters

None

Data type returned

text

Originated in

FileMaker Pro 8.0

Description

In Windows, an asterisk appears next to the zoom percentage when **Enlarge window contents to improve readability** is selected in the **General** tab of the Preferences dialog box.

Note For information on how functions evaluate differently on the host versus the client, search the FileMaker Knowledge Base available at www.filemaker.com/kb.

Examples

Returns **200** when the current window's zoom percentage is set to 200.

Returns **200*** in Windows when the current window's zoom percentage is set to 200 and **Enlarge window contents to improve readability** is selected.

Related topics

Contents
Functions reference (alphabetical list)

Logical functions

Logical functions test for a condition to evaluate it as true or false. This is known as a Boolean value. If the condition is true, FileMaker Pro returns a **1**; if the condition is false, FileMaker Pro returns a **0**. You can use the keywords `True` and `False` with logical functions and operators when a Boolean value is needed. Keyword `True` returns **1** and keyword `False` returns **0**.

Logical functions can also evaluate parameters such as text or arithmetic operations that do not make a true or false statement, or in the case of the `GetField` function, return the contents of another field.

Click a function name for details.

This function	Returns
Case	One of several possible results based on a series of tests.
Choose	One result value, according to the integer value of a specified test.
Evaluate	Evaluates the specified expression as a calculation.
EvaluationError	An error code, if any, from the specified expression.
GetAsBoolean	**1** if data converts to a non-zero numeric value; **0** if the specified data has a value of 0 or is empty.
GetField	The contents of the referenced field.
GetFieldName	The fully qualified name of a field reference.
GetLayoutObjectAttribute	The requested layout object attributes from the calculation's active window.
GetNthRecord	The contents of the referenced field from the requested record number.
If	One of two possible results depending on the value of the specified test.
IsEmpty	**1** if the specified field is empty, if the related field, related table, relationship, or file is missing, or if some other error occurs; otherwise, returns **0**.
IsValid	**0** when a record contains an invalid value because of a field type mismatch (text in a date field, for example).
IsValidExpression	**1** if the syntax of the specified expression is correct.
Let	Sets variable to the result of value for the duration of the specified expression.
Lookup	The value specified in the `sourceField` parameter using the relationships in the relationships graph.
LookupNext	The value specified in the `sourceField` parameter using the relationships in the relationships graph.
Self	The content of the object in which the calculation is defined; otherwise, returns an empty string.

Case

Purpose

Returns one of several possible `results` based on a series of `tests`.

Format

```
Case(test1;result1{;test2;result2;...;defaultResult})
```

Parameters

`test` - any text or numeric expression.

`result` - result corresponding to the expression.

Parameters in curly braces { } are optional.

Data type returned

text, number, date, time, timestamp, container

Originated in

FileMaker Pro 6.0 or earlier

Description

`Case` evaluates each test expression in order, and when a True expression is found, returns the value specified in `result` for that expression.

You can include a default result at the end of the parameter list. If none of the expressions evaluate to True, the `Case` function returns the value specified for `defaultResult`. If no default result is supplied, `Case` returns an empty result.

Examples

`Case(Score >= 90;"Excellent";Score > 50;"Satisfactory";"Needs Improvement")` displays **Excellent** when the score is 90 or above, **Satisfactory** when the score is between 50 and 90, and **Needs Improvement** for any other score.

`Case(Shipment Method="Ground";2;Shipment Method="Air";10)` returns **10**, when the Shipment Method field contains Air.

Related topics

Contents
Functions reference (alphabetical list)

Choose

Purpose

Returns one `result` value, according to the integer value of `test`.

Format

```
Choose(test;result0{;result1;result2...})
```

Parameters

`test` - Any integer calculation. The calculation result of test must be a number that indexes into the list that follows. Because the index is a 0-based index, the test result must be 0 to access the first result.

`result` - one or more results.

Parameters in curly braces { } are optional.

Data type returned

text, number, date, time, timestamp, container

Originated in

FileMaker Pro 6.0 or earlier

Description

FileMaker Pro evaluates `test` to obtain an index number, which is used to choose the corresponding ordinal result.

Because `Choose` is a 0-based list, the first item on the list is indexed 0 and the second item on the list is indexed 1. For example, if test evaluates to 2, then result2 is chosen.

Examples

```
Choose(Rating;"Not Applicable";"Good";"Fair";"Poor")
```

Rating is a number field that is empty or holds a value. If Rating is empty or 0, the `Choose` function returns **Not Applicable**. If Rating is 1, the result is **Good**. If Rating is 2, the result is **Fair**, and if it is 3, the result is **Poor**. If Rating contains a value that does not map to one of the result parameters, the `Choose` function returns nothing.

Related topics

Contents
Functions reference (alphabetical list)

Evaluate

Purpose

Evaluates `expression` as a calculation.

Format

```
Evaluate(expression{;[field1;field2;field3;...]})
```

Parameters

`expression` - any text expression or text field.

`fields` - a list of fields that this function is dependent on. When these fields are modified, the calculation will update its result.

Parameters in curly braces { } are optional. Notice that the optional field list is enclosed in square brackets [ ].

Data type returned

text, number, date, time, timestamp, container

Originated in

FileMaker Pro 7.0

Description

The optional `fields` parameter is a list of fields this calculation is dependent on. If a necessary field isn't listed, modifying that dependent field won't update the result of the calculation.

Examples

`Evaluate(TextField)` returns **4** when TextField contains 2 + 2.

`Evaluate("textfield")` returns **2 + 2** when textfield contains 2 + 2.

`Evaluate(GetField("textfield"))` returns **4** when textfield contains 2 + 2.

`Evaluate(TextField;[Amount])` returns **.80** when TextField contains .08 * Amount and the Amount field contains 10.00.

`Evaluate(“Let(TaxRate=.05;“& Tax Rate Calculation &“)”)` returns **.50** when the field Tax Rate Calculation contains SubTotal * TaxRate where SubTotal is a numeric field that contains 10.00.

The following example shows how to pass named parameters using the `Evaluate`, `Let`, and `Get(ScriptParameter)` functions, allowing access only to variable `“a”` (the example returns **6**):

```
ScriptParameter = "a = 5; b = 10"

Evaluate("Let ( [" & Get(ScriptParameter) & "]; a + 1 )")
```

The following example shows how to pass named parameters, allowing access to both variable `“a”` and `“b”`. The simplified first parameter makes the second parameter more complex (the example returns **6, 12**):

```
ScriptParameter = "a = 5; b = 10"

Evaluate("Let ( [" & Get(ScriptParameter) & "]; a + 1 & \", \" & b + 2 )")
```

The following example shows how to pass named parameters, while keeping the ability to check the syntax of the second parameter of the `Let` function (the example returns **6, 12**):

```
ScriptParameter = "a = 5; b = 10"

Let(  [a = Evaluate("Let( [" & Get(ScriptParameter) & "]; a )"),
          b = Evaluate("Let( [" & Get(ScriptParameter) & "]; b )")]; a + 1
& ", " & b + 2 )
```

Note The `Evaluate` function evaluates an expression, including field values to be evaluated as a calculation formula. It also allows you to specify field dependencies so that a calculation using the evaluation function can be triggered due to changes in other fields of the same record. This function evaluates user-defined formulas. For example, you can create a formula in the Total field that computes state tax:

```
Evaluate(StateTaxFormula) + ShippingCost
```

where the StateTaxFormula field contains:

```
SubTotal * 1.0875
```

and the SubTotal field contains the subtotal before tax and shipping.

The `Evaluate` function has an optional second parameter, which is a field the calculation is dependent on. When the dependent field contents change, FileMaker Pro re-evaluates the calculation. In the following example, the Total calculation will be re-evaluated when SubTotal changes:

```
Evaluate(StateTaxFormula; SubTotal) + ShippingCost
```

The dependent parameter can also be useful in other cases. For example,

```
Evaluate(“Get(CurrentTimeStamp)”; [FieldB; FieldC])
```

will store a timestamp in the calculation field whenever FieldB or FieldC changes.

Related topics

Contents
Functions reference (alphabetical list)

EvaluationError

Purpose

Returns an error code, if any, from `expression`.

Format

```
EvaluationError(expression)
```

Parameters

`expression` - any calculation expression

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

There are two types of errors: syntax and runtime. A syntax error indicates an invalid calculation. A runtime error, such as Field missing or Record missing, occurs when the calculation currently being run is valid but cannot properly execute.

The `EvaluationError` function must enclose the `Evaluate` function to return any syntax errors.

Examples

`EvaluationError(calculationField)` returns **102** (Field Missing) when `calculationField` contains `total + 1` and the field total has been deleted or renamed.

`EvaluationError(Evaluate(calculationField))` returns **1207** (Unbalanced Parenthesis) when `calculationField` contains `abs(-1` with no closing parenthesis.

Related topics

Contents
Functions reference (alphabetical list)

GetAsBoolean

Purpose

Returns **1** if `data` converts to a non-zero numeric value or if a container field contains data; returns **0** if `data` has a numeric value of **0** or is empty.

Format

`GetAsBoolean(data)`

Parameters

`data` - any text, number, date, time, timestamp or container expression, or a field containing text, a number, date, time, timestamp or container

Data type returned

number

Originated in

FileMaker Pro 8.0

Description

Returns a Boolean value.

Examples

`GetAsBoolean("")` returns **0**.

`GetAsBoolean("Some text here.")` returns **0**.

`GetAsBoolean(Container Field)` returns **1** when the field named Container Field contains data, or returns **0** when Container Field is empty.

Related topics

Contents
Functions reference (alphabetical list)

GetField

Purpose

Returns the contents of `fieldName`.

Format

`GetField(fieldName)`

Parameters

`fieldName` - any text expression or text field that refers to a field's name

Important See Design functions for information about literal text parameters.

Data type returned

text, number, date, time, timestamp, container

Originated in

FileMaker Pro 6.0 or earlier

Description

Use this function to get the contents of `fieldName`, or in any function that uses a field, such as `NPV`, `GetSummary`, `GetRepetition`, or the aggregate functions.

Examples

Suppose you have the fields Arrow and Target. Arrow contains the text string Target, and Target contains the text string Bullseye.

- `GetField("Arrow")` returns **Target**. Notice the use of quotation marks around Arrow to indicate the literal string is the `fieldName` parameter.
- `GetField(Arrow)` returns **Bullseye**. Notice the absence of quotation marks to indicate the value stored in the Arrow field is the `fieldName` parameter.

Suppose you have the fields FirstName and LastName. FirstName contains the text string Jane, and LastName contains the text string Public.

- `GetField("FirstName")&" "&GetField("LastName")` returns the text string **Jane Public**.

`GetSummary(GetField("Field1"), GetField("Field" & "2"))` performs a summary on the summary field Field1, using a break field of Field2.

Related topics

Contents
Functions reference (alphabetical list)

GetFieldName

Purpose

Returns the fully qualified name of a field reference.

Format

`GetFieldName(fieldName)`

Parameters

`fieldName` - any field object or evaluation of a text expression that refers to a field's name

Data type returned

text

Originated in

FileMaker Pro 10.0

Description

Use this function to get the fully qualified name of `fieldName` (tableName::fieldName).

Note If you specify the context for the current calculation, this function will be evaluated based on that context. Otherwise, it will be evaluated based on the context of the current window.

Examples

`GetFieldName(x)` returns the name of a field reference passed into a custom function as parameter `x`.

`GetFieldName(Evaluate(<fieldName>))` returns the name of a field based on the data stored in `<fieldName>`.

`GetFieldName(Evaluate(Get(ActiveFieldName)))` returns the fully qualified name of the field that has the focus when executed.

Related topics

Contents
Functions reference (alphabetical list)

GetLayoutObjectAttribute

Purpose

Returns the specified attributes of the layout object given by `objectName` that is currently active in the calculation.

Format

```
GetLayoutObjectAttribute(objectName;attributeName{;repetitionNumber;
portalRowNumber})
```

Parameters

`objectName` - the name of a named layout object on the current layout.

`attributeName` - the name of a supported attribute (see below).

`repetitionNumber` - the repetition number (for repeating fields).

`portalRowNumber` - the number of the row in the portal.

Note Parameters in curly braces {} are optional.

Data type returned

text

Originated in

FileMaker Pro 8.5

Attributes

`objectType` - returns the object's type as a text literal, in English. Valid return values are: field, text, graphic, line, rectangle, rounded rectangle, oval, group, button group, portal, tab panel, chart, web viewer, and unknown.

`hasFocus` - returns **1** (True) if `objectName` is currently active, otherwise returns **0** (False). Objects that can have the focus are fields, portals, tab panels, and groups. Also returns **1** for a portal when a portal row is selected.

`containsFocus` - returns **1** (True) if `objectName` is currently active or if it contains an active object; otherwise returns **0** (False). Objects that can contain the focus are fields, portals, tab panels, and groups.

`isFrontTabPanel` - returns **1** (True) if the target object is the tab panel that is in front.

The following object coordinates are given in pixels relative to the bottom-left corner of the FileMaker menu bar:

`bounds` - returns a list of numeric values, separated by spaces, that describes the placement of the specified object (left-top to right-bottom).

`left` - returns the left edge coordinate of the specified object.

`right` - returns the right edge coordinate of the specified object.

`top` - returns the top edge coordinate of the specified object.

`bottom` - returns the bottom edge coordinate of the specified object.

`width` - returns a number representing the width (in pixels) of the specified object.

`height` - returns a number representing the height (in pixels) of the specified object.

`rotation` - returns a number representing the rotation (in degrees) of the specified object.

`startPoint,endPoint` - returns a pair of numeric values (horizontal vertical), separated by spaces, that represent the start point or end point of a line object. Other objects return the top-left point for `startPoint` and the bottom-right point for `endPoint`.

`source` - returns the source description of the specified object as follows. For:

web viewers - returns current URL.

fields - returns the fully qualified field name (table name::field name).

text objects - returns the text (does not return merge fields).

portals - returns the related table name.

graphics - returns image data such as the fieldname of a Container field.

charts - returns the XML description of a chart object.

For all other objects, returns an empty string.

`content` - returns the content of the specified object as follows. For:

web viewers - returns the current content (such as HTML code).

fields - returns the field data formatted using the specified object's properties.

text objects - returns the text (including text from merge fields).

graphics - returns image data such as the name of a file in a Container field if the image is stored, or the reference to the file if the image is unstored.

charts - returns the bitmap representation of a chart object.

For all other objects, returns an empty string.

`enclosingObject` - returns `objectName` of the enclosing layout object. Otherwise, returns an empty string. Only groups, tab panels, and portals can contain other objects.

`containedObjects` - returns a list of named objects contained within `objectName`. Only groups, tab panels, and portals can contain other objects.

Notes

- If objects are set to auto-resize, attributes returned are based on the resized bounds of the object in its current state.
- If objects are located above the status toolbar, negative coordinate values are returned.
- The `hasFocus`, `containsFocus`, `source`, and `content` attributes behave differently in Instant Web Publishing. For more information, in FileMaker_Pro, choose **Help** menu > **Product Documentation** > **Instant Web Publishing Guide**, or find this guide in the folder where FileMaker Pro is installed.
- When `repetitionNumber` or `portalRowNumber` is 0, the function behaves as if the parameter was not specified. For `portalRowNumber`, the function returns data from the first portal row. For `repetitionNumber`, the function acts on the first repetition (for returning `content` or `source`) or acts on the entire field as a whole (for returning `bounds`). Both parameters are necessary because you must be able to reference a particular field repetition within a particular portal row.

Examples

`GetLayoutObjectAttribute("CancelButton","objectType")` returns **group** (if the button does not have an action or script associated with it) or returns **button group** (if the button has an action or script associated with it).

`GetLayoutObjectAttribute("CancelButton","bounds")` returns **138 24 391 38 0**.

Related topics

Contents
Functions reference (alphabetical list)

GetNthRecord

Purpose

Returns the contents of `fieldName` from the provided `recordNumber`.

Format

`GetNthRecord(fieldName;recordNumber)`

Parameters

`fieldName` - any related field or repeating field, or an expression that returns a field or a repeating field

`recordNumber` - the record number from which you want data

Data type returned

text, number, date, time, timestamp, container

Originated in

FileMaker Pro 8.0

Description

The result of `GetNthRecord()` will not be updated when the record referred to by GetNthRecord() is a record other than the one in which the calculation is currently being evaluated.

`GetNthRecord` of the current table returns the Nth record of the found set according to how the current table is sorted.

`GetNthRecord` of a related table returns the Nth record of the related set (relative to the current record), regardless of how the related table (or portal) is sorted.

Examples

`GetNthRecord(First Name;2)` returns the contents of the First Name field for record 2 in the current table.

`GetNthRecord(First Name;Get(RecordNumber)+ 1)` returns the contents of the First Name field for the next record in the current table.

`GetNthRecord(Contacts::First Name;2)` returns the contents of the First Name field for record 2 in the Contacts table.

`GetNthRecord(Contacts::Has Repetitions[2];2)` returns the contents of the second repetition of the Has Repetitions field for record 2 in the Contacts table.

Related topics

Contents
Functions reference (alphabetical list)

If

Purpose

Returns one of two possible results (`result1` or `result2`) depending on the value of `test`.

Format

`If(test;result1;result2)`

Parameters

`test` - any numeric value or logical expression

`result1` - expression or field name

`result2` - expression or field name

Data type returned

text, number, date, time, timestamp, container

Originated in

FileMaker Pro 6.0 or earlier

Description

If `test` is True (any non-zero numeric result), FileMaker Pro returns `result1`. If `test` is False (0), `result2` is returned. `Test` must be an expression that returns either a numeric or Boolean (True, False) result.

Notes

- If you have more than two possible results, consider using the `Case` function.
- By default, if `test` refers to a field that doesn't yet contain a value, `If` returns an empty result. To override this functionality, deselect the **Do not evaluate if all referenced fields are empty** checkbox.

Examples

`If(Country = "USA";"US Tech Support";"International Tech Support")` returns **International Tech Support**, if the Country field contains France or Japan. Returns **US Tech Support** if the Country field contains USA.

`If(State ="CA";Subtotal * CA Tax Rate;0)` returns the tax if the purchaser is a resident of California; otherwise returns **0**.

Related topics

Contents
Functions reference (alphabetical list)

IsEmpty

Purpose

Returns True(1) if `field` is empty, if a related field, related table, relationship, or file is missing, or if some other error occurs; otherwise, returns False(0).

Format

```
IsEmpty(field)
```

Parameters

`field` - any field name, text expression, or numeric expression

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Examples

`IsEmpty(OrderNum)` returns **1** if the OrderNum field is empty.

`If(IsEmpty(LastName);"Invalid record";"")` displays **Invalid Record** if the LastName field is blank, but displays nothing if there is an entry in LastName.

`IsEmpty(Payments::DatePaid)` returns **1** if, for example, the Payments table has been moved or renamed.

`IsEmpty("text")` returns **0**.

Related topics

Contents
Functions reference (alphabetical list)

IsValid

Purpose

Returns **0** (False) if the data is invalid and **1** (True) if the data is valid.

Format

`IsValid(field)`

Parameters

`field` - any field name

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Returns **0** (False) if:

- A record contains an invalid value because of a field type mismatch (text in a date field, for example)
- FileMaker Pro cannot locate (temporarily or permanently) the related table in which the referenced field is defined

- A field has been deleted from a related table, and therefore the references to that field in the parent table are invalid

Otherwise, it returns **1** (the data is valid).

Examples

`IsValid(Datefield)` returns **0** if there is non-date data in Datefield, for example if text was imported into it.

`IsValid(Amount)` returns **0** if there is only text in the number field Amount.

`IsValid(table::field)` returns **0** if the related table was renamed and the relationship isn't updated with the new filename.

Related topics

Contents
Functions reference (alphabetical list)

IsValidExpression

Purpose

Returns **1** (True) if `expression` syntax is correct. Returns **0** (False) if `expression` has a syntax error.

Format

```
IsValidExpression(expression)
```

Parameters

`expression` - any calculation expression

Data type returned

number

Originated in

FileMaker Pro 7.0

Examples

`IsValidExpression(calculationField)` returns **1** (true) if `calculationField` contains `total + 1`.

`IsValidExpression(calculationField)` returns **0** (false) if `calculationField` contains `abs(-1` with no closing parenthesis.

Related topics

Contents
Functions reference (alphabetical list)

Let

Purpose

Sets `varX` to the result of `expressionX` for the duration of calculation, until the script exits (local variables), or until the file is closed (global variables).

Format

```
Let({[}var1=expression1{;var2=expression2...]};calculation)
```

Parameters

`var` - any variable name, local variable name, or global variable name

`expression` - any calculation expression, field, or constant.

`calculation` - any calculation expression, field, or constant.

Parameters in curly braces { } are optional.

Data type returned

text, number, date, time, timestamp, container

Originated in

FileMaker Pro 7.0

Description

Multiple variables are allowed when using a list syntax that is enclosed in square brackets [ ] and is separated by semicolons. For example:

```
Let([variable=value;variable2=value2];calculation)
```

The $ symbol references a local variable and two $$ symbols reference a global variable. An optional repetition number appears in square brackets [ ] immediately after the variable name. For example:

```
Let([$variable[repetition]=value;$$variable2=value2]{;calculation} )
```

The `Let` function sets the variables from left to right. You can use previously defined variables (for example, variables that you defined with the Set Variable script step) to define new variable values, and you can nest one `Let` function within another. If you use a previously defined variable within a nested `Let` function, the variable has scope only within the nested function (as if you had defined a completely unique variable). See the City example shown below.

Once defined, local and global variables can be referenced in any calculation within their scope. The scope of global variables is limited to the current file. The scope of local variables is the current script. Local variables defined in a calculation are scoped to the file but are only available when scripts are not running. A local and global variable (or even two local variables in different scripts) can have the same name but they are treated as different variables and store different values.

Examples

`Let(x=5;x*x)` returns **25**.

`Let([x=5;squared=x*x;cubed=squared*x];cubed)` returns **125**.

`Let(City=“Paris”;Let(City=“San Francisco”;City&“-“)&City)` returns **San Francisco – Paris**.

The following example sets a local variable `counter` at repetition `50` with a value of `120`:

`Let($counter[50]=120;$counter[50]*2)` returns **240**.

The following example shows how to pass named parameters using the `Evaluate`, `Let`, and `Get(ScriptParameter)` functions, allowing access only to variable `“a”` (the example returns **6**):

```
ScriptParameter = "a = 5; b = 10"
Evaluate("Let([" & Get(ScriptParameter) & "]; a+1 )" )
```

The following example shows how to pass named parameters, allowing access to both variable `“a”` and variable `“b”`. The simplified first parameter makes the second parameter more complex (the example returns **6, 12**):

```
ScriptParameter = "a = 5; b = 10"
Evaluate("Let( [" & Get(ScriptParameter) & "]; a+1 & \", \" & b+2 )" )
```

The following example shows how to pass named parameters, while keeping the ability to check the syntax of the second parameter of the `Let` function (the example returns **6, 12**):

```
ScriptParameter = "a = 5; b = 10"
Let([a = Evaluate("Let( [" & Get(ScriptParameter) & "]; a )"),b =
Evaluate("Let( [" & Get(ScriptParameter) & "]; b )")]; a+1 & ", " & b+2 )
```

Related topics

Contents
Functions reference (alphabetical list)

Lookup

Purpose

Returns the value specified in `sourceField` using the relationships in the relationships graph. The result of the optional `failExpression` will be returned if the lookup fails.

Format

`Lookup(sourceField{;failExpression})`

Parameters

`sourceField` - the field from which the lookup value is taken.

`failExpression` - any expression.

Parameters in curly braces { } are optional.

Data type returned

text, number, date, time, timestamp, container

Originated in

FileMaker Pro 7.0

Description

For this function to access the contents of the source field, the tables containing the source field and calculation field need to be related. Calculations using the `Lookup` function won't be forced to be unstored calculations.

Note `Lookup` returns `?` when the related table is an ODBC data source.

Examples

There are two tables, People and Company, in a database file containing the data shown below.

People table

CompanyID	Employee
100	John Smith
200	Peter Wong
300	Sally Anderson

Company table

CompanyID	CompanyName	Code
100	Apple	91234
100	Apple	82345
200	FileMaker	95054

The People and Company tables are related using the number field CompanyID. The calculation `CompanyName = Lookup(Company::CompanyName;"Not found")` defined in the People table will return **Apple** for the first record, **FileMaker** for the second record, and **Not found** for the third record.

Related topics

Contents
Functions reference (alphabetical list)

LookupNext

Purpose

Reutnrs the next lower or higher value in `sourcefield` when there isn't a matching related value.

Format

```
LookupNext(sourceField;lower/higherFlag)
```

Parameters

`sourceField` - the field from which the lookup value is taken

`lower/higherFlag` - the keywords `lower` or `higher` denote whether the value from the next lower/higher matching record must be taken if no related record is found

Data type returned

text, number, date, time, timestamp, container

Originated in

FileMaker Pro 7.0

Description

Returns the value specified in `sourceField` using the relationships in the relationships graph. LookupNext is similar to Lookup, except that when the lookup fails, the value from `sourceField` in the lower or higher matching record will be returned, as specified by `lower/higherFlag`.

For this function to access the value in `sourceField`, the tables containing the source field and calculation field need to be related. Calculations using the `LookupNext` function won't be forced to be unstored calculations.

Note `LookupNext` returns `?` when the related table is an ODBC data source.

Examples

In this example, you are shipping several items and the cost of shipping is based on weight ranges. Use the LookupNext function to find which shipping rate applies for an item. Use `LookupNext` with the `higher` flag instead of `Lookup` because the weight of an item may not exactly match the maximum weight, therefore we want to find the *next* highest value.

There are two tables, Items and Shipping Costs, in a database file containing data as shown below.

Items table

Item	Weight	Rate Lookup
Lamp	8	
Chair	22	
Desk	60	
Bed	120	

Shipping Costs table

Rate Code	Maximum Weight
A	25
B	50
C	100
D	150

The two tables are related by `Weight` and `Max Weight`. The calculation field `Rate Lookup` is defined as `Rate Lookup = LookupNext(Shipping Costs::Max Weight; Higher).`

The `Rate Lookup` calculation field will return **25**, **25**, **100**, and **150** for records 1 to 4. `Rate Lookup` can then be used to get the correct rate code (A, A, C, and D respectively).

Item	Weight	Rate Lookup
Lamp	8	25
Chair	22	25
Desk	60	100
Bed	120	150

Related topics

Contents
Functions reference (alphabetical list)

Self

Purpose

Returns the content of the object in which the calculation is defined.

Format

```
Self
```

Parameters

```
None
```

Data type returned

text, number, date, time, timestamp

Originated in

FileMaker Pro 9.0

Description

The `Self` function provides a way for a calculation to reference the object with which it is associated without having to explicitly reference the object.

Use `Self` to create a single calculation formula that can be applied to different objects. The `Self` function is helpful for conditional formatting calculations and tooltip calculations because it returns the content of the layout object when that object has a value. You can also use the `Self` function in field definition calculations (including auto-enter and validation calculations) to return the value of the corresponding field.

Examples

`self > 10` returns **1** (True) when applied to a layout field object whose value is greater than 10.

Related topics

Contents

Functions reference (alphabetical list)

Number functions

Number functions are used to manipulate numeric data.

Click a function name for details.

This function	Returns
Abs	The absolute value (a positive number) of a number.
Ceiling	A number rounded up to the next integer.
Combination	The number of ways to uniquely choose a specified number of items from a set of specified size.
Div	An integer of the specified number divided by the divisor.
Exp	The value of the constant **e** (the base of the natural logarithm, equal to 2.7182818) raised to the power of a specified number.
Factorial	The factorial of a specified number stopping at 1, or at a specified number factorial.
Floor	A number rounded down to the next lower integer.
Int	The whole number (integer) part of the value you specify, without rounding.
Lg	The base 2 logarithm of the specified number, which can be any positive value.
Ln	The base-e (natural) logarithm of the specified number.
Log	The common logarithm (base 10) of the specified number, which can be any positive value.
Mod	The remainder after a specified number is divided by divisor.
Random	A random number between zero and one.
Round	A number rounded off to the specified precision (number of decimal places).
SetPrecision	Any math functions contained within the specified expression to the specified digits of precision, if the math function supports extended precision.
Sign	One of three possible values: **-1** when the specified number is negative, **0** when it's zero, and **1** when it's positive.
Sqrt	The square root of a number.
Truncate	A number truncated to the specified precision (number of decimal places), without evaluating the value of the discarded digits.

Abs

Purpose

Returns the absolute value of `number`.

Format

```
Abs(number)
```

Parameters

`number` - any numeric expression or field containing a numeric expression

Data type returned

number, time

Originated in

FileMaker Pro 6.0 or earlier

Description

The absolute value of a number is positive. For example, if a negative number appears in a field, the `Abs` function removes the minus sign and changes it to a positive value.

Examples

`Abs(-123)` returns **123**.

`Abs(PriceDifference)` returns the positive value of the number in the PriceDifference field.

`Abs(TargetDate - ActualDate)` returns a positive value for the number of days difference between the values in TargetDate and ActualDate.

Related topics

Contents
Functions reference (alphabetical list)

Ceiling

Purpose

Returns `number` rounded up to the next integer.

Format

`Ceiling(number)`

Parameters

`number` - any numeric expression or field containing a numeric expression

Data type returned

number

Originated in

FileMaker Pro 7.0

Examples

`Ceiling(1.25)` returns **2**.

`Ceiling(-1.25)` returns **-1**.

Related topics

Contents
Functions reference (alphabetical list)

Combination

Purpose

Returns the number of ways to uniquely choose `numberOfChoices` items from a set of size `setSize`.

Format

```
Combination(setSize;numberOfChoices)
```

Parameters

`setSize` - any numeric expression or field containing a non-negative numeric expression

`numberOfChoices` - any numeric expression or field containing a non-negative numeric expression

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

This function is useful in statistics, combinatorics, and polynomial expansions. The values returned by this function are referred to as combination coefficients. They form Pascal's triangle.

$$\textbf{Combination} = \frac{\textbf{Factorial}(\textbf{setSize, numberOfChoices})}{\textbf{Factorial}(\textbf{numberOfChoices})}$$

Examples

`Combination(5;2)` returns **10** for a set consisting of {a, b, c, d, e} because the unique choices when choosing two at a time are {ab, ac, ad, ae, bc, bd, be, cd, ce, de}.

`(13 * 12 * Combination(4;2) * Combination(4;3)) / Combination(52;5)` returns **0.00144057...**, which is the probability of being dealt a full-house in 5-card poker (less than a 1% chance).

Related topics

Contents
Functions reference (alphabetical list)

Div

Purpose

Returns the next lowest integer value after dividing `number` by `divisor`. Equivalent to `Floor(number/divisor)`.

Format

`Div(number;divisor)`

Parameters

`number` - any numeric expression or field containing a numeric expression

`divisor` - any numeric expression or field containing a numeric expression

Data type returned

number

Originated in

FileMaker Pro 7.0

Examples

`Div(2.5;2)` returns **1**.

`Div(-2.5;2)` returns **-2**.

Related topics

Contents
Functions reference (alphabetical list)

Exp

Purpose

Returns the value of the constant **e** (the base of the natural logarithm, equal to 2.7182818) raised to the power of `number`.

Format

`Exp(number)`

Parameters

`number` - any numeric expression or field containing a numeric expression

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

The `Exp` function is the inverse of the `Ln` function.

Examples

`Exp(1)` returns **2.71828182...**.

`Exp(Ln(2))` returns **2**.

`Exp(0)` returns **1**.

Related topics

Contents
Functions reference (alphabetical list)

Factorial

Purpose

Returns the factorial of `number` stopping at 1 or stopping at the optional `numberOfFactors`.

Format

`Factorial(number{;numberOfFactors})`

Parameters

`number` - numeric expression or field containing a positive integer.

`numberOfFactors` - any numeric expression or field containing a number that represents how many factors to include in the multiplication.

Parameters in curly braces { } are optional.

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

This function is useful in statistics and combinatorics.

Where `n = number` and `i = numberOfFactors`:

$$\mathbf{Factorial}(\mathbf{n}) = \mathbf{n}(\mathbf{n}-\mathbf{1})(\mathbf{n}-\mathbf{2})\ldots(\mathbf{1})$$

$$\mathbf{Factorial}(\mathbf{n;i}) = \mathbf{n}(\mathbf{n}-\mathbf{1})(\mathbf{n}-\mathbf{2})\ldots(\mathbf{n}-\mathbf{i}+\mathbf{1})$$

Examples

`Factorial(3)` returns **6**, which = 3 * 2 * 1.

`Factorial(10;3)` returns **720**, which = 10 * 9 * 8.

Related topics

Contents
Functions reference (alphabetical list)

Floor

Purpose

Returns `number` rounded down to the next lower integer.

Format

`Floor(number)`

Parameters

`number` - any numeric expression or field containing a numeric expression

Data type returned

number

Originated in

FileMaker Pro 7.0

Examples

`Floor(1.25)` returns **1**.

`Floor(-1.25)` returns **-2**.

Related topics

Contents
Functions reference (alphabetical list)

Int

Purpose

Drops digits to the right of the decimal point and returns the integer part of `number` without rounding.

Format

`Int(number)`

Parameters

`number` - any numeric expression or field containing a numeric expression

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Examples

`Int(1.45)` returns **1**.

`Int(123.987)` returns **123**.

`Int(Players/3)` returns **4**, if Players contains **13**.

Related topics

Contents
Functions reference (alphabetical list)

Lg

Purpose

Returns the base-2 logarithm of `number`.

Format

`Lg(number)`

Parameters

`number` - any numeric expression or field containing a numeric expression

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

`Number` can be any positive value. Negative values return an error. For 0, the `Lg` function returns nothing because this value is out of the acceptable range.

$$\mathbf{Lg} = \frac{\mathbf{Ln}(\mathbf{number})}{\mathbf{Ln}(\mathbf{2})}$$

Examples

`Lg(1)` = **0**

`Lg(2)` = **1**

`Lg(32)` = **5**

Related topics

Contents
Functions reference (alphabetical list)

Ln

Purpose

Returns the base-e (natural) logarithm of `number`.

Format

`Ln(number)`

Parameters

`number` - any numeric expression or field containing a numeric expression

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

`Number` can be any positive value. Negative values and 0 return an error. The `Exp` function is the inverse of the `Ln` function.

Examples

`Ln(2.7182818)` returns **.99999998...**.

`Ln(Exp(5))` returns **5**.

Related topics

Contents
Functions reference (alphabetical list)

Log

Purpose

Returns the base-10 (common) logarithm of `number`.

Format

`Log(number)`

Parameters

`number` - any positive numeric expression or field containing a numeric expression

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

`Number` can be any positive value. Negative values return an error. For 0, the `Log` function returns nothing because this value is out of the acceptable range.

$$\textbf{Log} = \frac{\textbf{Ln}(\textbf{number})}{\textbf{Ln}(\textbf{10})}$$

Examples

`Log(1)` returns **0**.

`Log(100)` returns **2**.

Related topics

Contents
Functions reference (alphabetical list)

Mod

Purpose

Returns the remainder after `number` is divided by `divisor`.

Format

`Mod(number;divisor)`

Parameters

`number` - any numeric expression or field containing a numeric expression

`divisor` - numeric expression or field containing a numeric expression

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Use the `Mod` function to test whether a number is even or odd by specifying a divisor of 2. If the result is zero, then the number is even; otherwise, it's odd. The result has the same sign as `divisor`.

$$\textbf{Mod} = \textbf{number} - (\textbf{Div}(\textbf{number;divisor}) \bullet \textbf{divisor})$$

Examples

`Mod(13;4)` returns **1**.

`Mod(7;5)` returns **2**.

`Mod(7;-5)` returns **-3**.

`Mod(-7;5)` returns **3**.

`Mod(-7;-5)` returns **-2**.

`Mod(Participants;TeamSize)` returns **4** if Participants contains **40** and TeamSize contains **9**.

`If(Mod(Get(RecordNumber);2) = 0;"even";"odd")` labels a record even or odd using the `Get(RecordNumber)` function.

Related topics

Contents
Functions reference (alphabetical list)

Random

Purpose

Returns a number between zero and one, including zero, but not including one.

Format

Random

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Returns a pseudo-random number in the range (0,1). FileMaker Pro generates a new random number when you:

- insert the `Random` function into a formula
- cause a formula containing the `Random` function to be reevaluated (by changing data in any of the fields the formula uses)
- display or access a calculation field defined to have an unstored result

Examples

```
NumDice + NumSides * Random
```

Related topics

Contents
Functions reference (alphabetical list)

Round

Purpose

Returns `number` rounded off to the specified `precision` (number of decimal places).

Format

```
Round(number;precision)
```

Parameters

`number` - any numeric expression or field containing a numeric expression

`precision` - any numeric expression or field containing a numeric expression

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

If you round a negative number of decimal places, all digits to the right of the decimal point are dropped, and the number is rounded to the nearest tens, hundreds, and so on. The `Round` function always rounds up at 0.5.

Examples

`Round(123.456;2)` returns **123.46**.

`Round(14.5;0)` returns **15**.

`Round(29343.98;-3)` returns **29000**.

`Round(123.456;-1)` returns **120**.

Related topics

[Contents]
[Functions reference (alphabetical list)]

SetPrecision

Purpose

Computes any math functions contained within `expression` that support extended precision to `precision` decimal places (from 16 up to 400).

Format

```
SetPrecision(expression;precision)
```

Parameters

`expression` - any numeric expression

`precision` - any number or numeric expression

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

All functions except trigonometric functions support extended precision. This function doesn’t perform a truncation.

Examples

`SetPrecision(5/9;30)` returns **0.555555555555555555555555555556**.

`SetPrecision(1.321321321321321321321321321;0)` returns **1.3213213213213213**.

`SetPrecision(If(field1>5;Exp(50);Average(5/9;1/7;5/7));25)` returns either **5184705528587072464087.4533229334853848274691006** if field1 > **5**, or **0.4708994708994708994708995** if field1 <= **5**.

Related topics

[Contents]
[Functions reference (alphabetical list)]

Sign

Purpose

Returns one of three possible values: **-1** when `number` is negative, **0** when it's zero, and **1** when it's positive.

Format

`Sign(number)`

Parameters

`number` - any numeric expression or field containing a numeric expression

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Examples

`Sign(15.12)` returns **1**.

`Sign(-175)` returns **-1**.

`Sign(BalanceDue)` returns **0**, if BalanceDue is a number field containing **0**.

Related topics

Contents
Functions reference (alphabetical list)

Sqrt

Purpose

Calculates the square root of `number`.

Format

`Sqrt(number)`

Parameters

`number` - any positive number, numeric expression, or field containing a numeric expression

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Use this function to calculate `Sqrt`.

$$\textbf{Sqrt} = \sqrt{\textbf{number}}$$

Examples

`Sqrt(4)` returns **2**.

`Sqrt(SquareFeet)` returns **6** if the SquareFeet number field contains **36**.

Related topics

Contents
Functions reference (alphabetical list)

Truncate

Purpose

Returns `number` truncated to the specified `precision` (number of decimal places).

Format

`Truncate(number;precision)`

Parameters

`number` - any numeric expression or field containing a numeric expression

`precision` - any numeric expression or field containing a numeric expression

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

This function doesn’t evaluate digits beyond the specified `precision`. Use the `Round` function to round up or down to the required precision.

Examples

`Truncate(123.456;2)` returns **123.45**.

`Truncate(-14.6;0)` returns **-14**.

`Truncate(29343.98;-3)` returns **29000**.

`Truncate(123.456;4)` returns **123.456**.

`Truncate(29343.98;5)` returns **29343.98**.

Related topics

Contents
Functions reference (alphabetical list)

Repeating functions

Repeating functions perform calculations on repeating fields.

Click a function name for details.

This function	Returns
Extend	In a calculation involving both repeating and non-repeating fields, allows a value in a non-repeating field to be used with every repetition in a repeating field.
GetRepetition	The contents of the specified repetition of a repeating field.
Last	The last valid, non-blank value in the specified field.

Extend

Purpose

Allows a value in `non-repeatingField` to be used with every repetition in a repeating field.

Format

`Extend(non-repeatingField)`

Parameters

`non-repeatingField` - any non-repeating field (a field defined to contain only one value), or an expression that returns a reference to one

Data type returned

text, number, date, time, timestamp, container

Originated in

FileMaker Pro 6.0 or earlier

Description

Use the `Extend` function with calculations involving both repeating and non-repeating fields. Without the `Extend` function, the value in `non-repeatingField` is used only with the first repetition in the repeating field.

Examples

`Extend(TaxRate) * Quantity * ItemPrice` returns **1.197**, **.6606**, and **1.497** when `TaxRate` contains **.06**; the repeating field Quantity contains **1**, **3**, and **5**; and the repeating field ItemPrice contains **19.95**, **3.67**, and **4.99**.

`Item Count * Extend(if(Company Size > 100; Reduced Price; Price))` returns **$1250**, **$500**, and **$750** when `Reduced Price` contains $50; the repeating field `Item Count` contains 25, 10, and 15; and `Company Size` is greater than 100. If `Company Size` is less than 100 and `Price` contains $100, this calculation returns **$2500**, **$1000**, and **$1500**.

Related topics

Contents

Functions reference (alphabetical list)

GetRepetition

Purpose

Returns the contents of the repeating field specified by `number`.

Format

```
GetRepetition(repeatingField;number)
```

Parameters

`repeatingField` - any repeating field, or an expression that returns a reference to a repeating field

`number` - the field repetition number

Data type returned

text, number, date, time, timestamp, container

Originated in

FileMaker Pro 6.0 or earlier

Examples

ParcelBids is a field defined to repeat with ten values and contains the values 2500, 1200, and 1500.

`GetRepetition(ParcelBids;2)` returns **1200**.

`GetRepetition(if(IsEmpty(ParcelBids) ≠ true, ParcelBids, HouseBids);2)` returns **1200**.

`GetRepetition(ParcelBids;5)` returns nothing.

Note You can also find the contents of a particular repetition in a repeating field using square brackets [ ] as array operators. For example, `ParcelBids[2]` returns **1200**.

Related topics

Contents

Functions reference (alphabetical list)

Last

Purpose

Returns the last valid, non-blank value in `field`.

Format

`Last(field)`

Parameters

`field` - any repeating field or related field, or an expression that returns a reference to a repeating field or related field

Data type returned

text, number, date, time, timestamp, container

Originated in

FileMaker Pro 6.0 or earlier

Description

If `field` specifies a repeating field then it returns the last non-blank repetition. If `field` specifies a related field, then it returns the last non-blank value in the related set.

Note The last related value will depend on the way related records are sorted. If the related records are not sorted, then the `Last` function returns a value based on the creation order of the records.

Examples

`Last(ParcelBids)` returns **1500** if ParcelBids is a number field defined to repeat with ten values and contains the values 2500, 1200, and 1500.

`Last(Payments::PaymentDate)` returns the payment date in the last matching record in the Payments table.

`Last(if(IsEmpty(Company);PersonalPhone;WorkPhone))` returns the last non-empty phone number from the repeating field PersonalPhone when the Company field is empty. If the Company field is not empty, the function returns the last non-empty phone number from the repeating field WorkPhone.

Related topics

Contents
Functions reference (alphabetical list)

Summary functions

Summary functions produce a summary of all records in the found set, or subsummary values for records in different groups. Formulas can contain more than one summary function. Summary functions calculate more slowly than other functions because they generate values for a range of records.

An alternative way to generate similar calculated results is to use Aggregate functions to summarize data in related records (whether or not they appear in a portal). See Aggregate functions and information about summarizing data in portals.

Click the function name for details.

This function	Returns
GetSummary	The value of the summary field for the current range of records when the database file is sorted by the break field.

GetSummary

Purpose

Returns the value of `summaryField` for the current range of records when the database file is sorted by `breakField`.

Format

```
GetSummary(summaryField;breakField)
```

Parameters

`summaryField` - field of type summary, or an expression that returns a reference to one.

`breakField` - field, or an expression that returns a reference to one. To calculate a grand summary value, use the same summary field for both the summary field and the break field parameters.

`GetSummary` must be set up in the same table as the break field.

Data type returned

number, date, time, timestamp

Originated in

FileMaker Pro 6.0 or earlier

Description

This function produces subsummary values. If the database file isn’t sorted by the break field, the result is blank.

When a summary field is also used as the break field, returns the summary field value for the entire found set of records (a grand summary value).

Use `GetSummary` to capture summary values when you want to:

- use summary values in a calculation
- display subsummary values in Browse mode or in a body part

Calculations using the `GetSummary` function are unstored.

Note You can get similar results using a self-join relationship and Aggregate functions.

Examples

`GetSummary(Total Sales;Country)` returns a summary of all records pertaining to the value in the Country field.

`GetSummary(Total Sales, if(Number of Countries > 1, Country, Sales Zone))` returns a summary of Total Sales by Country if Number of Countries is greater than 1. Otherwise, it returns a summary of Total Sales by Sales Zone.

`GetSummary(Total Sales;Total Sales)` produces a summary of all records (similar to using a summary field, which is a total of total sales).

`If(ThisCharge > 3 * GetSummary(AvgCharge;Customer), “Verify this charge”, “ “)` displays **Verify this charge** if the current charge is greater than three times the average charge.

Related topics

Contents
Functions reference (alphabetical list)

Text functions

Text functions can be used to analyze, rearrange, extract, and build text strings. For example, you could use the `MiddleWords` function to extract specific words from supplied text.

Text functions operate on these parameters:

- fields of type text
- text constants (in quotation marks)
- expressions having a text result

Click a function name for details.

This function	Returns
Char	Returns the characters for the Unicode code points in the number.
Code	Returns the Unicode code points for the characters in the text. If zero characters are in the text, returns **0**.
Exact	**1** (True) for an exact match, or **0** (False) for a mismatch between two text strings or container fields.
Filter	Only the specified characters, in the order that they were originally entered in the text.
FilterValues	Only the specified values, in the order that they were originally entered in the text.
GetAsCSS	The specified text, converted to the CSS (Cascading Style Sheets) format.
GetAsDate	Dates in the specified text as field type date, for use in formulas involving dates or date functions.
GetAsNumber	Numbers in the specified text as field type number, for use with formulas involving numbers or numeric functions.
GetAsSVG	The specified text, converted to the SVG (Scalable Vector Graphics) format.
GetAsText	The specified number, date, time or timestamp as field type text, for use with formulas involving text or text functions.
GetAsTime	Times or timestamps in the specified text as field type time, for use with formulas involving the time or timestamp functions.
GetAsTimestamp	The specified data as field type timestamp, for use with formulas involving timestamps.
GetAsURLEncoded	The specified text, converted with URL (Uniform Resource Locators) encoding.
GetValue	A specific value from a list of values.
Hiragana	Hiragana converted from Katakana (Hankaku and Zenkaku).
KanaHankaku	Hankaku Katakana converted from Zenkaku Katakana.
KanaZenkaku	Zenkaku Katakana converted from Hankaku Katakana.
KanjiNumeral	Kanji numerals converted from Arabic numerals.
Katakana	Zenkaku Katakana converted from Hiragana.
Left	The specified number of characters in the text, counting from the left.
LeftValues	The specified number of values in the text, counting from the left.
LeftWords	The specified number of words in the text, counting from the left.
Length	The number of characters in the specified text, including all spaces, numbers, and special characters.

This function	Returns
Lower	All letters in the specified text as lowercase.
Middle	The specified number of characters in the text, starting at a specified character position.
MiddleValues	The specified number of values in the text, starting with a specified value.
MiddleWords	The specified number of words in the text, starting with a specified word.
NumToJText	Roman numbers converted from Japanese text.
PatternCount	The number of occurrences of a search string in the specified text.
Position	The specified occurrence of a search string, starting from a specified position.
Proper	The first letter of each word in the specified text as uppercase, and all other letters as lowercase.
Quote	The specified text surrounded by quotation marks (“ ”).
Replace	A new string of characters consisting of the specified text as modified by the specified replacement text.
Right	The specified number of characters in the text, counting from the right.
RightValues	The specified number of values in the text, counting from the right.
RightWords	The specified number of words in the text, counting from the right.
RomanHankaku	Hankaku (alphanumeric & symbols) converted from Zenkaku (alphanumeric & symbols).
RomanZenkaku	Zenkaku (alphanumeric & symbols) converted from Hankaku (alphanumeric & symbols).
SerialIncrement	The combined text and numbers in a specified value, with the numbers incremented by the specified amount.
Substitute	A text string with every occurrence of a specified search string in the text replaced by a specified replacement string.
Trim	Text stripped of all leading and trailing spaces.
TrimAll	Text with full width spaces between non-Roman and Roman characters removed.
Upper	All letters in the specified text as uppercase.
ValueCount	A count of the total number of values in the specified text.
WordCount	A count of the total number of words in the specified text.

Char

Purpose

Returns the characters for the Unicode code points in the number.

Format

```
Char(number)
```

Parameters

`number` - a decimal number representing one or more Unicode code points

Data type returned

text

Originated in

FileMaker Pro 10.0

Description

Each group of five digits in the number is treated as a Unicode code point, and the character for each five-digit group is returned in the text.

If the number is 0, the function returns an empty string.

If the number is between 1 and 99,999, the function returns a single character.

If the number contains more than five digits, the function returns the string of characters represented by those code points.

Note Some Unicode characters can be represented by a single code point or multiple code points. For example, the character *ä* can be represented by the letter **a** plus ¨ (dieresis) or by the single character **ä**. The single code point version of this kind of character is called a precomposed character or a composite character.

Examples

`Char(0)` returns **an empty string ("")**.

`Char(97)` returns **a**.

`Char(98)` returns **b**.

`Char(9800097)` returns **ab**.

`Char(228)` returns **ä**.

`Char(77600097)` returns **ä**. In this case the number represents two Unicode characters: the letter **a** and the dieresis character. When these two characters appear together in a string they are displayed as a single character.

Related topics

Contents
Functions reference (alphabetical list)

Code

Purpose

Returns the Unicode code points for the characters in the text.

Format

`Code(text)`

Parameters

`text` - one or more characters

Data type returned

number

Originated in

FileMaker Pro 10.0

Description

Returns the Unicode code points for the characters in the text. If zero characters are in the text, returns **0**.

If one character is in the text, the function returns the code point for that character. If the text contains multiple characters, the Unicode code point for each character is returned as a group of five digits where the code point for the first character is represented by the low five digits, the code point for the second character in the next higher (to the left) five digits, and so forth.

When converting a composite character such as **ä**, the function returns the Unicode code point for the composite character.

The following table shows how navigational characters are reported to a script activated by this trigger:

Key Pressed	Is reported as	Notes
backspace	8	Corresponds to Unicode/ASCII code for BS (backspace)
tab	9	Corresponds to Unicode/ASCII code for HT (horizontal tab)
shift-tab	9	The shift can be detected using the value returned from the Get(TriggerModifierKeys) function
enter	10	Corresponds to Unicode/ASCII code for LF (linefeed)
return	13	Corresponds to Unicode/ASCII code for CR (carriage return)
escape	27	Corresponds to Unicode/ASCII code for ESC (escape)
left arrow	28	Corresponds to Unicode/ASCII code for FS (file separator)
up arrow	29	Corresponds to Unicode/ASCII code for GS (group separator)
right arrow	30	Corresponds to Unicode/ASCII code for RS (record separator)
down arrow	31	Corresponds to Unicode/ASCII code for US (unit separator)
space	32	Corresponds to Unicode/ASCII code for Space
forward delete	127	Corresponds to Unicode/ASCII code for Delete

Note If there are too many characters to be represented in the FileMaker number field type, the function returns a NaN (Not a Number) value.

Examples

`Code("")` returns **0**.

`Code("a")` returns **97**.

`Code("b")` returns **98**.

`Code("ab")` returns **9800097**.

`Code("ä")` returns **228**.

`Code("ä")` (an **a** followed by a dieresis character entered in a separate keystroke) returns **77600097**.

Related topics

Contents
Functions reference (alphabetical list)

Exact

Purpose

Compares the contents of any two fields. If the fields match, the result is **1** (True); otherwise, the result is **0** (False).

Format

`Exact(originalText;comparisonText)`

Parameters

`originalText` - any text expression, text field, or container field

`comparisonText` - any text expression, text field, or container field

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

For text to match exactly, the uppercase and lowercase usage must be the same. For container fields, the data must be stored in the same manner (either embedded, or stored by reference).

Note When evaluating values, text attributes such as font, styles, and sizes are not considered.

Tip If case isn't important, use the `Lower` or `Upper` function on both parameters to process data before checking for an exact match.

Examples

`Exact("McDonald";"McDonald")` returns **1** (True).

`Exact("McDonald";"MCDONALD")` returns **0** (False).

`Exact(Upper(“McDonald”);Upper(“MCDONALD”))` returns **1** (True).

`Exact(“John”;“John ”)` returns **0** (False).

`Exact(BillTo;ShipTo)` returns **1** (True) when the value in BillTo is the same as the value in ShipTo.

`Exact(Recipient;Upper(Recipient))` returns **1** (True), when Recipient contains JOHNSON.

`Exact(Country;“Spain”)` returns 1 (True) when the Country field contains Spain.

Related topics

Contents
Functions reference (alphabetical list)

Filter

Purpose

Returns from `textToFilter` only those characters specified in `filterText`, in the order they were originally entered in `textToFilter`.

Format

`Filter(textToFilter;filterText)`

Parameters

`textToFilter` - any text expression or text field

`filterText` - the characters to preserve in the specified text

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

If `filterText` doesn’t have any characters, an empty string is returned. The `Filter` function is case-sensitive.

Examples

`Filter(“(408)555-1212”;“0123456789”)` returns **4085551212**.

`Filter(“AaBb”;“AB”)` returns **AB**.

The following example removes all text from the provided data, then formats the remaining numbers in the preferred phone number formatting:

```
Let(phone = filter(theField;“0123456789”);“(“ & left(phone;3) & “)” &
middle(phone;4;3) & “-” & middle(phone;7;4))
```

If `theField` contains **Work: 408.555.1212** this calculation returns **(408)555-1212**.

Related topics

Contents

Functions reference (alphabetical list)

FilterValues

Purpose

Returns a text result containing only the values that were provided in `filterValues`, in the order they were originally entered in `textToFilter`.

Format

`FilterValues(textToFilter; filterValues)`

Parameters

`textToFilter` - any text expression or text field

`filterValues` - values that you want to preserve in the specified text

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

If `filterValues` doesn't have any values, an empty string is returned.

Values are text items separated by carriage returns. A value can be empty, a single character, a word, a sentence, or a paragraph. When you press Enter or Return, you start creating a new value. The last value will be recognized with or without a carriage return.

When the `textToFilter` or the `filterValues` parameter is a literal string, you must insert a paragraph character (¶) between each item in the string. To insert a carriage return character, click the **¶** button in the Specify Calculation dialog box.

The `FilterValues` function is not case-sensitive.

Examples

`FilterValues("Plaid¶Canvas¶Suitcase";"Plaid¶Canvas")` returns

Plaid

Canvas

`FilterValues(ValueListItems("Database";"Sizes");"Medium¶Small")` returns

Small

Medium

when a database file named Database has a value list Sizes that contains `Small¶Medium¶Large`.

Related topics

Contents
Functions reference (alphabetical list)

GetAsCSS

Purpose

Returns `text` converted to the CSS (Cascading Style Sheets) format.

Format

`GetAsCSS(text)`

Parameters

`text` - any text expression or text field

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

CSS format is an internet text format similar to HTML. CSS supports more text formats than HTML, so CSS will represent what you have typed more accurately.

Note The `GetAsCSS` function does not return formats that are set in the Conditional Formatting dialog box.

Examples

`GetAsCSS(text)` returns the example result shown below when the field text contains the word “Frank” and the word Frank has the following text attributes: Font = Helvetica, Font Size = 12 points, Font Color = red, Font Style = bold.

Example result:

<SPAN STYLE = “font-family: 'Helvetica';font-size: 12px;color:

#FF0000;font-weight: bold;text-align: left;”>Frank</SPAN>

Related topics

Contents
Functions reference (alphabetical list)

GetAsDate

Purpose

Returns dates in `text` as field type date, for use in formulas involving dates or date functions.

Format

```
GetAsDate(text)
```

Parameters

`text` - any text expression or text field containing text in the same format as the date on the system where the file was created

Data type returned

date

Originated in

FileMaker Pro 6.0 or earlier

Description

Use the `GetAsDate` or `Date` function to enter a date constant into a formula. The format of `text` date must be the same as the date format on the system where the file was created.

You can also use this function to convert the number of days to a date. If you specify a number as the parameter, it has to be between 1 (for 1/1/0001) and 1460970 (for 12/31/4000).

Note If the function returns a number instead of a date, go to the Specify Calculation dialog box and make sure the **Calculation result is** date.

Important To avoid errors when using dates, always use four-digit years.

Examples

`GetAsDate("03/03/2010")` returns **3/3/2010**. You can perform date operations on this result using the Date function.

`GetAsDate(733325)` returns **10/10/2009**. The number 733325 specifies the number of days since 1/1/0001.

Related topics

Contents
Functions reference (alphabetical list)

GetAsNumber

Purpose

Returns only the numbers in `text`, as field type number, for use with formulas involving numbers or numeric functions.

Format

`GetAsNumber(text)`

Parameters

`text` - any text expression or text field containing numbers

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

This function drops all non-numeric characters from `text`.

You can also use this function to convert a date to the number of days. The returned number is the number of days since 1/1/0001.

Examples

`GetAsNumber("FY98")` returns **98**.

`GetAsNumber("$1,254.50")` returns **1254.5**.

`GetAsNumber("2 + 2")` returns **22**.

`GetAsNumber(SerialNumber)` returns **35684**, when the value of SerialNumber is TKV35FRG6HH84.

`GetAsNumber(10/10/2008)` returns **733325**.

Related topics

Contents
Functions reference (alphabetical list)

GetAsSVG

Purpose

Returns `text` converted to the SVG (Scalable Vector Graphics) format.

Format

`GetAsSVG(text)`

Parameters

`text` - any text expression or text field

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

SVG is an internet text format similar to HTML or CSS. SVG supports more text formats than HTML, so SVG will represent what you have typed more accurately.

Note The GetAsSVG function does not return formats that are set in the Conditional Formatting dialog box.

Examples

`GetAsSVG(text)` returns the example result (below) when the field text contains the word "Frank" and the word Frank has the following text attributes: Font = Helvetica, Font Size = 12 points, Font Color = red, Font Style = bold.

Example result:

```
<StyleList>
 <Style#0>"font-family: 'Helvetica';font-size: 12px;color:
 #FF0000;font-weight: bold;text-align: left;",
 Begin: 1, End: 5</Style>
</StyleList>
<Data>
 <Span style="0">Frank</Span>
</Data>
```

Related topics

TBD: Yellow highlight removal
Contents
Functions reference (alphabetical list)

GetAsText

Purpose

Returns `data` as field type text, for use with formulas involving text or text functions.

Format

`GetAsText(data)`

Parameters

`data` - any number, date, time or timestamp expression, or a field containing a number, date, time, timestamp, or container

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

The `data` returned can be a field type number, date, time, timestamp, or container.

For a container field, `GetAsText` returns external path information, text (when the container contains text that does not resolve into a valid path), or a question mark (?) if the container data is embedded in the database.

Examples

`GetAsText(45)` returns **45**.

`"You are " & GetAsText(DaysDelinquent) & " days late."` returns **You are 3 days late.** when the value of DaysDelinquent is 3.

`"FY" & GetAsText(FiscalYear)` returns **FY98**, if the FiscalYear number field contains 98.

Related topics

Contents
Functions reference (alphabetical list)

GetAsTime

Purpose

Returns times or timestamps in `text` as field type time, for use with formulas involving the `Time` or `Timestamp` functions.

Format

`GetAsTime(text)`

Parameters

`text` - any text expression or text field containing a time

Data type returned

time

Originated in

FileMaker Pro 6.0 or earlier

Description

Use the `GetAsTime` or the `Time` function to enter a time constant into a formula. The format of the supplied time must be the same as the time format on the system where the file was created.

Examples

`GetAsTime("02:47:35")` returns **2:47:35** when you select time as the calculation result. You can perform time calculations on this result.

`GetAsTime("02:47:35")` returns **1/1/0001 2:47:35** when you select timestamp as the calculation result.

`Abs(GetAsTime("12:15 pm") - CheckOut)` returns **3:00:00** when the CheckOut time field contains 3:15 PM.

Related topics

Contents
Functions reference (alphabetical list)

GetAsTimestamp

Purpose

Returns `text` as field type timestamp, for use with formulas involving timestamps.

Format

`GetAsTimestamp(text)`

Parameters

`text` - any text expression, or text, number, date, or time field

Data type returned

timestamp

Originated in

FileMaker Pro 7.0

Description

Text strings must be in the form of a date followed by a time. A number is considered to be the number of seconds since 1/1/0001. There are 86400 seconds in each day.

Examples

`GetAsTimestamp("4/5/2010 4:05:06")` returns **4/5/2010 4:05:06 AM**.

`GetAsTimestamp(50000)` returns **1/1/0001 1:53:20 PM**.

Related topics

Contents
Functions reference (alphabetical list)

GetAsURLEncoded

Purpose

Returns `text` as URL (Uniform Resource Locator) encoding, for use as a URL.

Format

`GetAsURLEncoded(text)`

Parameters

`text` - any text expression or text field

Data type returned

text

Originated in

FileMaker Pro 8.5

Description

This function removes all styles from `text`. All characters are first converted to UTF-8 format. Characters that are neither letters nor digits, or digits that are in the upper ASCII range, are converted to %HH format (a percent sign followed by the character's hexadecimal value).

See the following website for more information on URL encoding:

www.w3.org

Examples

`GetAsURLEncoded("Hello")` returns **Hello**.

`GetAsURLEncoded("San Francisco")` returns **San%20Francisco**.

`GetAsURLEncoded("français")` returns **fran%c3%a7ais**.

Related topics

Contents
Functions reference (alphabetical list)

GetValue

Purpose

Returns the requested value given by `valueNumber` from `listOfValues`.

Format

`GetValue(listOfValues;valueNumber)`

Parameters

`listOfValues` - a list of carriage return-delimited values

`valueNumber` - the value to return from the list

Data type returned

text

Originated in

FileMaker Pro 8.0

Description

This function is useful in looping scripts or recursive custom calculations.

Values are text items separated by carriage returns. You can place several values together to create a carriage return-delimited list of values. A value can be empty, a single character, a word, a sentence, or a paragraph. When you press Enter or Return, you start creating a new value. The last value will be recognized with or without a carriage return.

When the `listOfValues` parameter is a literal string, you must insert a literal carriage return character (¶) between each item in the string. To insert a literal carriage return character, click the ¶ button in the Specify Calculation dialog box.

Examples

`GetValue("London¶Paris¶Hong Kong";2)` returns

Paris

Related topics

Contents
Functions reference (alphabetical list)

Hiragana

Purpose

Converts Katakana (Hankaku and Zenkaku) in `text` to Hiragana.

Format

`Hiragana(text)`

Parameters

`text` - any text expression or text field

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`Hiragana(“アイウエオ”)` returns あいうえお

Related topics

[Contents](#)
[Functions reference (alphabetical list)](#)

KanaHankaku

Purpose

Converts Zenkaku Katakana to Hankaku Katakana.

Format

`KanaHankaku(text)`

Parameters

`text` - any text expression or text field

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`KanaHankaku(“データベース“)` returns ﾃﾞｰﾀﾍﾞｰｽ

Related topics

[Contents](#)
[Functions reference (alphabetical list)](#)

KanaZenkaku

Purpose

Converts Hankaku Katakana to Zenkaku Katakana.

Format

`KanaZenkaku(text)`

Parameters

`text` - any text expression or text field

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`KanaZenkaku(“"ﾃﾞｰﾀﾍﾞｰｽ"”)` returns データベース

Related topics

[Contents](#)
[Functions reference (alphabetical list)](#)

KanjiNumeral

Purpose

Converts Arabic numerals to Kanji numeral.

Format

`KanjiNumeral(text)`

Parameters

`text` - any text expression or text field

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`KanjiNumeral(123)` returns 一二三

`KanjiNumeral(“富士見台２の３の２５”)` returns 富士見台二の三の二五

Related topics

[Contents](#)
[Functions reference (alphabetical list)](#)

Katakana

Purpose

Converts from Hiragana to Zenkaku Katakana.

Format

`Katakana(text)`

Parameters

`text` - any text expression or text field

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`Katakana(“あいうえお“)` returns アイウエオ

Related topics

[Contents]
[Functions reference (alphabetical list)]

Left

Purpose

Returns `numberOfCharacters` in `text`, counting from the left.

Format

`Left(text;numberOfCharacters)`

Parameters

`text` - any text expression or text field

`numberOfCharacters` - any numeric expression or field containing a number

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`Left("Manufacturing";4)` returns **Manu**.

`Left(Name;Position(Name;" ";1;1))` returns **Sophie**, when the Name field contains Sophie Tang.

`Left(PostalCode;3) & Upper(Left(LastName;4))` returns **481JOHN** when the PostalCode field contains 48187 and LastName contains Johnson.

Related topics

Contents
Functions reference (alphabetical list)

LeftValues

Purpose

Returns a text result containing `numberOfValues` from the list of values in `text`, counting from the left.

Format

`LeftValues(text;numberOfValues)`

Parameters

`text` - any text expression or text field

`numberOfValues` - any numeric expression or field containing a number

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

Values are text items separated by carriage returns. A value can be empty, a single character, a word, a sentence, or a paragraph. When you press Return you start creating a new value. The last value will be recognized with or without a carriage return.

Each returned value ends with a carriage return, allowing lists to be easily concatenated.

Examples

`LeftValues("Plaid¶Canvas¶Suitcase";2)` returns

Plaid

Canvas

`LeftValues(list;1)` returns

Sophie

when the text being evaluated contains

- Sophie
- Bill

Related topics

Contents
Functions reference (alphabetical list)

LeftWords

Purpose

Returns a text result containing `numberOfWords` in `text`, counting from the left.

Format

`LeftWords(text;numberOfWords)`

Parameters

`text` - any text expression or text field

`numberOfWords` - any numeric expression or field containing a number

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`LeftWords("Plaid Canvas Suitcase";2)` returns **Plaid Canvas**.

`LeftWords(Name;1)` returns **Sophie**, when the Name field contains Sophie Tang.

Note The ampersand (&) and hyphen (-) characters identify the beginning of a new word.

Related topics

Contents
Functions reference (alphabetical list)

Length

Purpose

Returns the number of characters in `field`, including all spaces, numbers, and special characters.

Format

`Length(field)`

Parameters

`field` - any text, number, date, time, timestamp, or container field, or any text expression or numeric expression

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

This function returns the number of characters in a specified field. For a container field, `Length` returns the total stored size of objects in bytes.

Examples

`Length("John")` returns **4**.

`Length(Description)` returns **12** when the value in Description is Modem for PC.

`Length("M1" & Left(Product;5))` returns **7**, when the Product field contains Canvas Backpack.

Related topics

Contents
Functions reference (alphabetical list)

Lower

Purpose

Returns all letters in `text` as lowercase.

Format

`Lower(text)`

Parameters

`text` - any text expression or text field

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`Lower("ABCD")` returns **abcd**.

`Lower(Course)` returns **history**, when the Course field contains History.

`Lower("YOUR BILL IS OVERDUE")` returns **your bill is overdue**.

Related topics

Contents
Functions reference (alphabetical list)

Middle

Purpose

Extracts the `numberOfCharacters` from `text`, starting at the character position specified by `start`.

Format

`Middle(text;start;numberOfCharacters)`

Parameters

`text` - any text expression or text field

`start` - any numeric expression or field containing a number

`numberOfCharacters` - any numeric expression or field containing a number

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`Middle("(408)555-9054";2;3)` returns **408**.

`Middle(PhoneNumber;2;3)` returns **408** when the PhoneNumber field contains (408) 555-9054.

`Middle("abcdefghij";5;2)` returns **ef**.

`Middle(Name;Position(Name;" ";1;1)+1;3)` returns **Smi**, when the text field Name contains John Smith.

Related topics

Contents
Functions reference (alphabetical list)

MiddleValues

Purpose

Returns a text result containing the specified `numberOfValues` in `text`, starting with `startingValue`.

Format

`MiddleValues(text;startingValue;numberOfValues)`

Parameters

`text` - any text expression or text field

`startingValue` - any numeric expression or field containing a number

`numberOfValues` - any numeric expression or field containing a number

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

Values are text items separated by carriage returns. A value can be empty, a single character, a word, a sentence or a paragraph. When you press Return you start creating a new value. The last value will be recognized with or without a carriage return.

Each value that is returned ends with a carriage return, allowing lists to be easily concatenated.

Examples

`MiddleValues("Plaid¶Canvas¶Suitcase";2;1)` returns

Canvas

`MiddleValues(list;2;2)` returns

Bill

John

when the list field contains

- Sophie
- Bill
- John

Related topics

Contents
Functions reference (alphabetical list)

MiddleWords

Purpose

Returns a text result containing the `numberOfWords` from `text`, beginning at `startingWord`.

Format

`MiddleWords(text;startingWord;numberOfWords)`

Parameters

`text` - any text expression or text field

`startingWord` - any numeric expression or field containing a number

`numberOfWords` - any numeric expression or field containing a number

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`MiddleWords("Plaid Canvas Suitcase";2;2)` returns **Canvas Suitcase**.

`MiddleWords(Name;1;2)` returns **Brigitte Erika**, when the Name field contains Brigitte Erika Durand.

Note The ampersand (&) and hyphen (-) characters identify the beginning of a new word.

Related topics

Contents
Functions reference (alphabetical list)

NumToJText

Purpose

Converts Roman numbers in `number` to Japanese text.

Format

`NumToJText(number;separator;characterType)`

Parameters

`number` - any numeric expression or field containing a number

`separator` - a number from 0 - 3 representing a separator

`characterType` - a number from 0 - 3 representing a type

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

If the value for `separator` and `characterType` are blank or other than 0 to 3, then 0 is used.

Separator:

- 0 - no separator
- 1 - every 3 digits (thousands)
- 2 - ten thousands(万) and millions(億) unit
- 3 - tens(十), hundreds(百), thousands(千), ten thousands(万) and millions(億) unit

Type:

- 0 - half width (Hankaku) number
- 1 - full width (Zenkaku) number
- 2 - Kanji character number 一二三
- 3 - Traditional-old-style Kanji character number 壱弐参

Examples

`NumToJText(123456789;2;0)` returns 1億2345万6789

`NumToJText(123456789;3;2)` returns 一億二千三百四十五万六千七百八十九

Related topics

Contents
Functions reference (alphabetical list)

PatternCount

Purpose

Returns the number of occurrences of `searchString` in `text`.

Format

`PatternCount(text;searchString)`

Parameters

`text` - any text expression or text field

`searchString` - any text expression or text field representing the set of characters you want to find

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Examples

`PatternCount("Mississippi";"is")` returns **2**.

`PatternCount("Mississippi";"issi")` returns **1** (the function isn't inclusive).

`PatternCount(Attending;"Guest")` returns **1** if the Guest checkbox is one of the items selected in the Attending field.

Related topics

Contents
Functions reference (alphabetical list)

Position

Purpose

Returns the starting position of the specified occurrence of `searchString` in `text`.

Format

`Position(text;searchString;start;occurrence)`

Parameters

`text` - any text expression or text field

`searchString` - any text expression or text field representing the set of characters you want to find.

`start` - any numeric expression, or field containing a number, representing the number of characters from the start of the text string at which to begin the search.

`occurrence` - any numeric expression or field containing a number, representing which instance of the text string you want to find. A negative occurrence value causes the scan to go in the opposite direction from start. A zero value for occurrence is invalid and returns a result of zero.

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

This function is not case-sensitive. If `searchString` isn't contained in text or if there was no specified occurrence, zero is returned.

Examples

`Position(“Mississippi”;“iss”;1;1)` returns **2**.

`Position(“Mississippi”;“iss”;1;2)` returns **5**.

`Position(“Mississippi”;“iss”;3;1)` returns **5**.

`Left(Name;Position(Name;“ “;1;1)-1)` returns **William**, when Name is a text field that contains William Smith.

`Right(Name;Length(Name) - Position(Name;“ “;Length(Name);-1))` returns **Smith**.

Related topics

Contents
Functions reference (alphabetical list)

Proper

Purpose

Returns the first letter of each word in `text` as uppercase and all other letters as lowercase.

Format

`Proper(text)`

Parameters

`text` - any text expression or text field

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`Proper(“ABCD”)` returns **Abcd**.

`Proper(Name)` returns **Yumiko Kitagawa**, when the Name field contains YUMIKO KITAGAWA.

Related topics

Contents
Functions reference (alphabetical list)

Quote

Purpose

Returns the text form of `text` enclosed in quotation marks.

Format

`Quote(text)`

Parameters

`text` - any text expression or field

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

This function protects text from being evaluated by the `Evaluate` function. Special characters within `text` are escaped appropriately.

Examples

`Quote(“hello”)` returns **“hello”**.

`Quote(“abc\¶”)` returns **“abc\¶”**.

`Quote(“say \”hello\” fred”)` returns **“say \”hello\” fred”**.

`Evaluate(Quote(“1 + 2”))` returns **1 + 2**.

`Evaluate(“1 + 2&” & Quote(“ - 1 + 2”))` returns **3 - 1 + 2**.

Related topics

Contents
Functions reference (alphabetical list)

Replace

Purpose

Replaces a string of characters in `text` with `replacementText`.

Format

`Replace(text;start;numberOfCharacters;replacementText)`

Parameters

`text` - any text expression or text field

`start` - any numeric expression or field containing a number representing the starting position in `text`

`numberOfCharacters` - any numeric expression or field containing a number representing the number of characters to remove from text

`replacementText` - any text expression or field containing the text to replace in the original string

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

Character replacement in `text` begins at the `start` character position and continues for `numberOfCharacters` characters. Compare to the `Substitute` function.

Examples

`Replace(“1234567”;5;1;“X”)` returns **1234X67**.

`Replace(“1234567”;5;1;“XX”)` returns **1234XX67**.

`Replace(“1234567”;5;2;“X”)` returns **1234X7**.

`Replace(“William”;3;4;”NEW TEXT”)` returns **WiNEW TEXTm**.

`Replace(PhoneNumber;1;3;”415”)` returns **415-555-9054**, when the PhoneNumber field contains 408-555-9054.

Related topics

Contents
Functions reference (alphabetical list)

Right

Purpose

Returns the specified `numberOfCharacters` in `text`, counting from the right.

Format

`Right(text;numberOfCharacters)`

Parameters

`text` - any text expression or text field

`numberOfCharacters` - any numeric expression or field containing a number

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`Right("Manufacturing";4)` returns **ring**.

`Right(Name;Length(Name) - Position(Name;" ";1;1))` returns **Cannon**, when the Name field contains Michelle Cannon.

`Right(SerialNumber;3) & Upper(Left(LastName;4))` returns **187FERR** when the SerialNumber text field contains 00-48-187 and LastName contains Ferrini.

Related topics

Contents
Functions reference (alphabetical list)

RightValues

Purpose

Returns a text result containing the specified `numberOfValues` in `text`, counting from the right.

Format

`RightValues(text;numberOfValues)`

Parameters

`text` - any text expression or text field

`numberOfValues` - any numeric expression or field containing a number

Important See Design functions for information about literal text parameters.

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

Values are text items separated by carriage returns. You can place several items together to create a carriage return-delimited list of values. A value can be empty, a single character, a word, a sentence, or a paragraph. When you press Return you start creating a new value. The last value will be recognized with or without a carriage return.

When the `text` parameter is a literal string as in the example below, you must insert a literal carriage return character between each item in the list. In the Specify Calculation dialog box, click the ¶ button to insert a literal carriage return character.

Each value that is returned ends with a carriage return, allowing lists to be easily concatenated.

Examples

`RightValues("Plaid¶Canvas¶Suitcase";2)` returns

Canvas

Suitcase

`RightValues(names;1)` returns

John

when the names field contains

- Sophie
- Bill
- John

Related topics

Contents
Functions reference (alphabetical list)

RightWords

Purpose

Returns a text result containing the `numberOfWords` in `text`, counting from the right.

Format

`RightWords(text;numberOfWords)`

Parameters

`text` - any text expression or text field

`numberOfWords` - any numeric expression or field containing a number

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`RightWords("Plaid Canvas Suitcase";2)` returns **Canvas Suitcase**.

`RightWords(Name;1)` returns **Virtanen**, when the Name field contains Matti Virtanen.

Note The ampersand (&) and hyphen (-) characters identify the beginning of a new word.

Related topics

Contents
Functions reference (alphabetical list)

RomanHankaku

Purpose

Converts from Zenkaku alphanumeric and symbols to Hankaku alphanumeric and symbols.

Format

`RomanHankaku(text)`

Parameters

`text` - any text expression or text field

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`RomanHankaku`(“Ｍａｃｉｎｔｏｓｈ”) returns **Macintosh**.

Related topics

Contents
Functions reference (alphabetical list)

RomanZenkaku

Purpose

Converts from Hankaku alphanumeric and symbols to Zenkaku alphanumeric and symbols.

Format

`RomanZenkaku(text)`

Parameters

`text` - any text expression or text field

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Examples

`RomanZenkaku`(“Macintosh”) returns **Ｍａｃｉｎｔｏｓｈ**.

Related topics

Contents
Functions reference (alphabetical list)

SerialIncrement

Purpose

Returns the combined text and numbers specified by `text`, with the numbers in `text` incremented by the specified amount.

Format

`SerialIncrement(text;incrementBy)`

Parameters

`text` - any text that also contains a number

`incrementBy` - any numeric expression to increment the text by

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

This function doesn't remove the text in `text`, which normally happens when performing standard math against a value that contains text.

If the `incrementBy` value is a decimal number, then only the integer portion of `incrementBy` value is added to the last number in `text`. Any character other than a number is considered a separator. You can use both positive and negative `incrementBy` values.

Examples

`SerialIncrement("abc12";1)` returns **abc13**.

`SerialIncrement("abc12";7)` returns **abc19**.

`SerialIncrement("abc12";-1)` returns **abc11**.

`SerialIncrement("abc12";1.2)` returns **abc13**.

`SerialIncrement("abc1.2";1.2)` returns **abc1.3**.

In the example below any character other than a number is considered as a separator and the number on the far right is incremented.

`SerialIncrement("abc123;999";1)` returns **abc123;1000**.

Related topics

Contents
Functions reference (alphabetical list)

Substitute

Purpose

Returns a text string with every occurrence of `searchString` in `text` replaced by `replaceString` in `text`.

Format

```
Substitute(text;searchString;replaceString)
```

Parameters

`text` - any text expression or text field

`searchString` - any text expression or text field

`replaceString` - any text expression or text field

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

This function is case-sensitive. Compare to the `Replace` function.

Multiple substitutions are allowed when you enclose each pair of `searchString` and `replaceString` parameters within square brackets [ ] and separate them with semicolons. Each search and replace list item is also separated by semicolons. For example:

```
Substitute(text; [search1; replace1]; [search2; replace2]; ... [searchN;
replaceN])
```

Examples

`Substitute(Description;"WYSIWYG.";"What you see is what you get.")` replaces every occurrence of the acronym "WYSIWYG." in the Description field with the phrase **What you see is what you get.**

`Substitute(text;["a";"A"];["b";"B"])` replaces every lowercase a or b with **A** or **B**.

Related topics

Contents
Functions reference (alphabetical list)

Trim

Purpose

Returns `text` stripped of all leading and trailing spaces.

Format

`Trim(text)`

Parameters

`text` - any text expression or text field

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

Use this function to remove unneeded spaces when you convert files from other programs or systems that require a fixed number of characters per field, or to remove spaces accidentally typed during data entry.

Examples

`Trim(" Tom ")` returns **Tom**.

`Trim(Middle("00230013 William 1234";9;9))` returns **William**.

Related topics

Contents
Functions reference (alphabetical list)

TrimAll

Purpose

Returns a copy of `text` with specified leading and trailing spaces removed or inserted. Use to work with non-Roman spaces such as half spaces; otherwise, use Trim.

Format

`TrimAll(text;trimSpaces;trimType)`

Parameters

`text` - any text expression or text field

`trimSpaces` - 0 or False, 1 or True

`trimType` - 0 through 3 depending on the trim style that you wish to use

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

Set trimSpaces to True (1) if you want to include the removal of full-width spaces between non-Roman and Roman characters. Set trimSpaces to False (0) if you do not.

A character is considered Roman if its Unicode value is less than U+2F00. Any character whose Unicode value is greater than or equal to U+2F00 is considered non-Roman.

Characters within the Roman range are those belonging to the following character blocks: Latin, Latin-1 Supplement, Latin Extended-A & B, IPA Extensions, Spacing Modifier Letters, Combining Diacritical Marks, Greek, Cyrillic, Armenian, Hebrew, Arabic, Devanagari, Bengali, Gurmukhi, Gujarati, Oriya, Tamil, Telugu, Kannada, Malayalam, Thai, Lao, Tibetan, Georgian, Hangul Jamo, and additional Latin and Greek extended blocks.

Symbols within the Roman range include punctuation characters, superscripts, subscripts, currency symbols, combining marks for symbols, letter-like symbols, number forms, arrows, math operators, control pictures, geometric shapes, dingbats, and so on.

Characters within the non-Roman range are those belonging to the CJK symbols/punctuations area, Hiragana, Katakana, Bopomofo, Hangul compatibility Jamo, Kanbun, CJK unified ideographs, and so on.

Spaces are removed or inserted depending on the value of `trimType,` as given in the following tables:

This trimType value	Does this
0	Removes all spaces between non-Roman and Roman characters (always leave one space between Roman words).
1	Always includes a half-width space between non-Roman and Roman characters (always leave one space between Roman words).
2	Removes spaces between non-Roman characters (reduce multiple space between non-Roman and Roman words to 1 space; do not add spaces if there are none; always leave one space between Roman words).
3	Removes all spaces everywhere.

In all cases, spaces between non-Roman characters are removed.

Type	Non-Roman - Non-Roman	Non-Roman - Roman	Roman - Roman
0	Remove	Remove	1 space
1	Remove	1 space*	1 space
2	Remove	1 space	1 space
3	Remove	Remove	Remove

* = insert space between non-Roman and Roman text if there isn’t one.

Examples

TrimAll(名前,1,0) returns 山田太郎 if the value of 名前 field is 山田　太郎

TrimAll(ファイルメーカーPro　は高品質",1,0) returns ファイルメーカーProは高品質

Related topics

[Contents](#)
[Functions reference (alphabetical list)](#)

Upper

Purpose

Returns all letters in `text` as uppercase.

Format

`Upper(text)`

Parameters

`text` - any text expression or text field

Data type returned

text

Originated in

FileMaker Pro 6.0 or earlier

Description

Use the `Upper` function to ensure consistent data entry of such things as state abbreviations or postal codes.

Examples

`Upper(“Ca”)` returns **CA**.

`Upper(“12n34p”)` returns **12N34P**.

Related topics

[Contents](#)
[Functions reference (alphabetical list)](#)

ValueCount

Purpose

Returns a count of the total number of values in `text`.

Format

```
ValueCount(text)
```

Parameters

`text` - any text expression or text field

Important See Design functions for information about literal text parameters.

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

Values are text items separated by carriage returns. You can place several items together to create a carriage-return-delimited list of values. A value can be empty, a single character, a word, a sentence, or a paragraph. When you press Return you start creating a new value. The last value will be recognized with or without a carriage return.

When the `text` parameter is a literal string as in the example below, you must insert a literal carriage return character between each item in the list. In the Specify Calculation dialog box, click the ¶ button to insert a literal carriage return character.

Examples

`ValueCount("Item 1¶Item 2¶Item 3")` returns **3**.

`ValueCount(ValueListItems("Employees";"Employee Names"))` returns the total number of values in the Employee Names value list in the Employees database file.

Related topics

Contents
Functions reference (alphabetical list)

WordCount

Purpose

Returns a count of the total number of words in `text`.

Format

`WordCount(text)`

Parameters

`text` - any text expression or text field

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Examples

`WordCount(“The sun is rising.”)` returns **4**.

`WordCount(Letter)` returns the total number of words in the Letter field.

Note The ampersand (&) and hyphen (-) characters identify the beginning of a new word.

Related topics

Contents
Functions reference (alphabetical list)

Text formatting functions

Text formatting functions can be used to change the color, font, size, and style of the specified text. For example, you could use the `TextFont` function to change the font of the specified text from Arial to Courier. You can use these functions together to change the apperance of text on your layouts.

Text formatting functions operate on these parameters:

- fields of type text
- text constants (in quotations)
- expressions having a text result

Click a function name for details.

This function	Returns
RGB	A number obtained by combining the red, green, and blue values to represent a color.
TextColor	The color of text to the color specified by the `RGB` function.
TextColorRemove	Text with the font colors reverted to the default font color for the field.
TextFont	Text in the specified font and character set.
TextFontRemove	Text with the fonts reverted to the default font for the field.
TextFormatRemove	Text with the formatting reverted to the default text format for the field.
TextSize	Text in the specified font size.
TextSizeRemove	Text with the font sizes reverted to the default font size for the field.
TextStyleAdd	Text with the specified styles added in a single action.
TextStyleRemove	Text with the specified styles removed in a single action.

RGB

Purpose

Returns an integer number from 0 to 16777215 obtained by combining the `red`, `green`, and `blue` values (each ranging from 0 to 255) to represent a color.

Format

```
RGB(red;green;blue)
```

Parameters

`red` - any numeric expression or numeric field containing a value ranging from 0 to 255

`green` - any numeric expression or numeric field containing a value ranging from 0 to 255

`blue` - any numeric expression or numeric field containing a value ranging from 0 to 255

Data type returned

number

Originated in

FileMaker Pro 7.0

Description

Numbers returned by this function can be passed as the color parameter in the `TextColor` or `TextColorRemove` functions. The `RGB` function uses the following formula to calculate the result:

$\texttt{red * 256}^2\texttt{ + green * 256 + blue}$

where $256^2 = 65536$

Tip To determine the RGB value of a color:

- (Windows) In Layout mode, click the Fill Color palette in the formatting bar and choose **Other Color**. Values are shown for each of the basic colors.
- (Mac OS) Start the DigitalColor Meter application in the Applications/Utilities folder. Choose **RGB As Actual Value, 8-bit**. Move the pointer over colors onscreen to see their values.

Examples

`RGB(255;0;0)` returns **16711680** representing red.

`RGB(0;255;0)` returns **65280** representing green.

`RGB(0;0;255)` returns **255** representing blue.

`RGB(0;0;0)` returns **0** representing black.

`RGB(255;255;255)` returns **16777215** representing white.

Related topics

Contents
Functions reference (alphabetical list)

TextColor

Purpose

Changes the color of `text` to the color specified by the `RGB` function.

Format

```
TextColor(text;RGB(red;green;blue))
```

Parameters

`text` - any text expression or text field

`RGB(red;green;blue)` - any integer from 0 to 16777215 obtained by combining the `red`, `green`, and `blue` values (each ranging from 0 to 255) to represent a color

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

Use this function to change the color of `text`.

Note Text formatting options will be lost if the field type that is returned is something other than text.

Tip To determine the RGB value of a color:

- (Windows) In Layout mode, click the Fill Color palette in the formatting bar and choose **Other Color**. Values are shown for each of the basic colors.
- (Mac OS) Start the DigitalColor Meter application in the Applications/Utilities folder. Choose **RGB As Actual Value, 8-bit**. Move the pointer over colors onscreen to see their values.

Examples

`TextColor(“Plaid”;RGB(255;0;0))` returns the word **Plaid** in red.

`TextColor(“Plaid”;RGB(0;255;0))` returns the word **Plaid** in green.

`TextColor(“Plaid”;RGB(0;0;255))` returns the word **Plaid** in blue.

`TextColor(“Plaid”;RGB(0;0;0))` returns the word **Plaid** in black.

`TextSize( TextFont( TextColor( MyTable::MyText; RGB( 0 ; 125 ; 125 ) ); "Courier" ) ; 12)` returns the text contained in **MyTable::MyText** formatted as 12pt. green text with the Courier font.

Related topics

Contents
Functions reference (alphabetical list)

TextColorRemove

Purpose

Removes all font colors in `text`, or removes the font color specified by the `RGB` function.

Format

```
TextColorRemove(text{;RGB(red;green;blue)})
```

Parameters

`text` - any text expression or text field.

`RGB(red;green;blue)` - any integer number from 0 to 16777215 obtained by combining the `red`, `green`, and `blue` values (each ranging from 0 to 255) to represent a color.

Parameters in curly braces { } are optional.

Data type returned

text

Originated in

FileMaker Pro 8.0

Description

Use this function to revert `text` to the default font color for the field. If you don't use the `RGB` function to specify a color, all of the text displays in the default font color that was set in Layout mode for the field. When the font color is specified by the `RGB` function, only the specified font color is removed from every portion of the text displayed in that color and these same portions of the text are then displayed in the field's default font color.

Note Text formatting options will be lost if the field type that is returned is something other than text.

Examples

`TextColorRemove("Red Text and Green Text")` returns **Red Text and Green Text** displayed in the field's default font color.

`TextColorRemove("Red Text and Green Text";RGB(255;0;0))` returns **Red Text and Green Text** with only the pure red font color removed from the words **Red Text**.

Related topics

Contents
Functions reference (alphabetical list)

TextFont

Purpose

Changes the font of `text` to the specified `fontName` or optional `{fontScript}`.

Format

`TextFont(text;fontName{;fontScript})`

Parameters

`text` - any text expression or text field.

`fontName` - any font name expressed in text.

`{fontScript}` - the name of a character set that contains characters required for writing in the specified language.

Parameters in curly braces { } are optional.

Note The `fontScript` parameter is not enclosed in quotation marks (" "), and can have any of the values listed below in Description.

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

Spellings for font names must be correct and are case-sensitive. Text formatting options will be lost if the field type that is returned is something other than text.

FileMaker Pro looks for a font that matches the specified font name and font script character set. If no matches exist, FileMaker Pro looks for a default font with the font script specified in the **Fonts** tab of the Preferences dialog box. If this fails, then the `TextFont` function uses the default font for the system script specified in the **Fonts** tab of the Preferences dialog box. This font might not be the same as the font script provided.

The following font scripts are available:

- Roman
- Greek
- Cyrillic
- CentralEurope
- ShiftJIS
- TraditionalChinese
- SimplifiedChinese
- OEM
- Symbol
- Other

Examples

`TextFont(“Plaid”;“Courier”)` returns the word **Plaid** in the Courier font.

`TextFont(“Plaid”;“Arial”)` returns the word **Plaid** in the Arial font.

`TextFont(“Plaid”;“Arial”;Cyrillic)` returns the word **Plaid** in the Arial font in the font script of Cyrillic.

`TextSize( TextFont( TextColor( MyTable::MyText; RGB( 0 ; 125 ; 125 ) ); "Courier" ) ; 12)` returns the text contained in **MyTable::MyText** formatted as 12pt. green text with the Courier font.

Related topics

Contents
Functions reference (alphabetical list)

TextFontRemove

Purpose

Removes all fonts in `text`, or removes the font specified by `fontToRemove` or the combination of `fontToRemove` and `fontScript`.

Format

```
TextFontRemove(text{;fontToRemove;fontScript})
```

Parameters

`text` - any text expression or text field.

`font`ToRemove - any font name expressed in `text`.

`fontScript` - the name of a character set that contains characters required for writing in the specified language.

Parameters in curly braces { } are optional.

Note The `fontScript` parameter is not enclosed in quotation marks (" "), and can have any of the values listed below in Description.

Data type returned

text

Originated in

FileMaker Pro 8.0

Description

Use this function to revert `text` to the default for the field. If you don't specify a font, all of the text displays in the default font that was set in Layout mode for the field. When the font is specified by `fontToRemove` or the combination of `fontToRemove` and `fontScript`, only the specified font is removed from every portion of the text displayed in that font and these same portions of the text are then displayed in the field's default font.

Spellings for font names must be correct and are case-sensitive. Text formatting options will be lost if the field type that is returned is something other than text.

FileMaker Pro looks for a font that matches the specified font name and font script character set. If no matches exist, FileMaker Pro looks for a default font with the font script specified in the **Fonts** tab of the Preferences dialog box. If this fails, then the `TextFontRemove` function uses the default font for the system script specified in the **Fonts** tab of the Preferences dialog box. This font might not be the same as the font script provided.

The following font scripts are available:

- Roman
- Greek
- Cyrillic
- CentralEurope
- ShiftJIS
- TraditionalChinese
- SimplifiedChinese
- OEM
- Symbol
- Other

Examples

`TextFontRemove(“Arial Text and Courier Text”)` returns **Arial Text and Courier Text** displayed in the field’s default font.

`TextFontRemove(“Arial Text and Courier Text”;“Arial”)` returns **Arial Text and Courier Text** with the Arial font removed from the words **Arial Text** for all `fontScripts` that use the Arial font.

`TextFontRemove(“Arial Text and Courier Text”;“Arial”;Cyrillic)` returns **Arial Text and Courier Text** with the Arial font removed from Cyrillic character sets.

Related topics

Contents
Functions reference (alphabetical list)

TextFormatRemove

Purpose

Removes all text formatting from `text` in a single action.

Format

`TextFormatRemove(text)`

Parameters

`text` - any text expression or text field

Data type returned

text

Originated in

FileMaker Pro 8.0

Description

Use this function to remove all fonts, styles, font sizes, and font colors from the specified text.

Examples

`TextFormatRemove(“Plaid”)` returns the word **Plaid** without any text formatting applied.

Related topics

Contents
Functions reference (alphabetical list)

TextSize

Purpose

Changes the font size of `text` to `fontSize`.

Format

`TextSize(text;fontSize)`

Parameters

`text` - any text expression or text or number field

`fontSize` - any font size expressed as an integer

Data type returned

text, number

Originated in

FileMaker Pro 7.0

Description

The font size is described in points (72 points to the inch). Text formatting options will be lost if the data type that is returned is something other than text or number.

Examples

`TextSize(“Plaid”;18)` returns the word **Plaid** in 18 point text.

`TextSize(“Plaid”;24)` returns the word **Plaid** in 24 point text.

`TextSize( TextFont( TextColor( MyTable::MyText; RGB( 0 ; 125 ; 125 ) ); "Courier" ) ; 12)` returns the text contained in **MyTable::MyText** formatted as 12pt. green text with the Courier font.

Related topics

Contents
Functions reference (alphabetical list)

TextSizeRemove

Purpose

Removes all font sizes in `text`, or removes the font size specified by `sizeToRemove`.

Format

`TextSizeRemove(text{;sizeToRemove})`

Parameters

`text` - any text expression or text field.

`sizeToRemove` - any font size expressed as an integer.

Parameters in curly braces { } are optional.

Data type returned

text

Originated in

FileMaker Pro 8.0

Description

Use this function to revert `text` to the default font size for the field. If you don’t specify a size, all of the text displays in the default font size that was set in Layout mode for the field. When the font size is specified by `sizeToRemove`, only the specified font size is removed from every portion of the text displayed in that size and these same portions of the text are then displayed in the field's default font size.

The font size is described in points (72 points to the inch). Text formatting options will be lost if the field type that is returned is something other than text.

Examples

`TextSizeRemove(“10 Point Text and 18 Point Text”)` returns **10 Point Text and 18 Point Text** displayed in the field’s default font size.

`TextSizeRemove(“10 Point Text and 18 Point Text”;18)` returns **10 Point Text and 18 Point Text** with the 18 point font size removed from the words **18 Point Text**.

Related topics

Contents
Functions reference (alphabetical list)

TextStyleAdd

Purpose

Adds the specified `styles` to `text` in a single action.

Format

`TextStyleAdd(text;styles)`

Parameters

`text` - any text expression or text field

`styles` - any named style listed below in Description

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

You can add multiple styles by using the + operator between style names. Negative values are not valid. All styles will be removed, if the only style specified is Plain. Plain is ignored if mixed with other styles. Styles are not case-sensitive and do not contain spaces.

Text formatting options will be lost if the field type that is returned is something other than text.

The styles that are available are:

- Plain
- Bold
- Italic
- Underline
- HighlightYellow
- Condense
- Extend
- Strikethrough
- SmallCaps
- Superscript
- Subscript
- Uppercase
- Lowercase
- Titlecase
- WordUnderline
- DoubleUnderline
- AllStyles (all available styles)

Examples

`TextStyleAdd(“Plaid”;Italic)` returns the word **Plaid** in italics.

`TextStyleAdd(FirstName;Bold+Underline)` returns **Sophie** in bold, underlined text when the FirstName field contains Sophie.

The following calculation removes all styles from the text, then italicizes the entire phrase.

```
TextStyleAdd(TextStyleAdd(FirstName;Plain);Italic)
```

The following calculation creates two descriptions of styles, then concatenates two phrases using these styles. Using the `Let` function is an effective way to avoid creating a long and complex `TextStyleAdd` statement.

```
Let([TitleStyle=Smallcaps+Titlecase;BodyStyle=Plain];
TextStyleAdd(titleField;titleStyle)&"¶¶" &
TextStyleAdd(bodyField;BodyStyle))
```

In the following example, to find every occurrence of several words and change their style, use the `Substitute` function combined with the `TextStyleAdd` function.

Substitute(ArticleBody;[“Phrase1”;TextStyleAdd(“Phrase 1”;Italic)];[“Phrase 2”;TextStyleAdd(“Phrase 2”;Bold)];)

Related topics

Contents
Functions reference (alphabetical list)

TextStyleRemove

Purpose

Removes the specified `styles` from `text` in a single action.

Format

`TextStyleRemove(text;styles)`

Parameters

`text` - any text expression or text field

`styles` - any named style from the list of available styles

Data type returned

text

Originated in

FileMaker Pro 7.0

Description

You can remove multiple styles by using the + operator between style names. Negative values are not valid. The Plain styles cannot be used for this function. Plain is ignored if intermingled with other styles. Styles are not case-sensitive and do not contain spaces.

An additional style called AllStyles has been provided to make it easier to remove all styles. Text formatting options will be lost if the field type that is returned is something other than text.

The styles that are available are:

- Bold
- Italic
- Underline
- HighlightYellow
- Condense
- Extend
- Strikethrough
- SmallCaps
- Superscript
- Subscript

- Uppercase
- Lowercase
- Titlecase
- WordUnderline
- DoubleUnderline
- AllStyles (all available styles)

Examples

`TextStyleRemove(“Plaid”;Italic)` returns the word **Plaid** with the italics style removed.

`TextStyleRemove(FirstName;Bold + Underline)` returns **Sophie** with the bold and underlined styles removed when the FirstName field contains Sophie.

`TextStyleRemove(FirstName;AllStyles)` returns **Sophie** without any styles.

`TextStyleRemove(MyTable::MyText;HighlightYellow)`returns the text contained in **MyTable::MyText** with the HighlightYellow style removed.

Related topics

Contents
Functions reference (alphabetical list)

Time functions

Time functions calculate times and manipulate time information.

Click a function name for details.

This function	Returns
Hour	A number representing the number of hours in a time value.
Minute	A number representing the number of minutes in a time value.
Seconds	A number representing the number of seconds in a time value.
Time	A time result with the specified number of hours, minutes, and seconds.

Hour

Purpose

Returns a number representing the number of hours in `time`.

Format

`Hour(time)`

Parameters

`time` - any time value or field of type time

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Examples

`Hour("12:15:23")` returns **12**.

`Hour(Duration) + (Minute(Duration)/60)` returns **2.5**, when the Duration time field contains 2:30:15.

`If(Hour(HoursWorked) > 8;"Overtime Pay";" ")` returns **Overtime Pay** when the number of hours in HoursWorked is greater than 8.

`Hour(CheckIn)` returns **3** when the value of CheckIn is 3:24.

Related topics

Contents
Functions reference (alphabetical list)

Minute

Purpose

Returns a number representing the number of minutes in `time`.

Format

```
Minute(time)
```

Parameters

`time` - any time value or field of type time

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Examples

`Minute(“12:15:23”)` returns **15**.

`Hour(Duration) + (Minute(Duration)/60)` returns **2.5**, if the Duration time field contains 2:30:15.

Related topics

Contents
Functions reference (alphabetical list)

Seconds

Purpose

Returns a number representing the number of seconds in `time`.

Format

```
Seconds(time)
```

Parameters

`time` - any time value or field of type time

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Examples

`Seconds("12:15:23")` returns **23**.

`Hour(Duration) + (Minute(Duration)/60) + (Seconds(Duration)/3600` returns **2.504166**, if the Duration time field contains 2:30:15.

Related topics

Contents
Functions reference (alphabetical list)

Time

Purpose

Returns a time result with the specified number of `hours`, `minutes`, and `seconds`.

Format

`Time(hours;minutes;seconds)`

Parameters

`hours` - the hour value of a time

`minutes` - the minutes value of a time

`seconds` - the seconds value of a time

Data type returned

time

Originated in

FileMaker Pro 6.0 or earlier

Description

FileMaker Pro compensates when you supply fractional hours or minutes. The result is the time, formatted according to the time format of the field in the current layout.

Use the `Time` function or the `GetAsTime` function to enter a time constant into a formula.

Examples

`Time(4;14;32)` returns **4:14:32**.

`Time(4.5;10;30)` returns **4:40:30**.

`Time(4;15;70)` returns **4:16:10**.

Related topics

Contents
Functions reference (alphabetical list)

Timestamp functions

Timestamps are used for a wide variety of synchronization purposes, such as marking the exact date and time at which a particular event occurred.

This function	Returns
Timestamp	A timestamp containing a calendar date and time of day.

Timestamp

Purpose

Returns a timestamp containing `date` as a calendar date and `time` as a time of day.

Format

`Timestamp(date;time)`

Parameters

`date` - any calendar date or date field

`time` - any time value or time field

Data type returned

timestamp

Originated in

FileMaker Pro 7.0

Description

The format of the result depends on the date and time formats that were in use when the database file was created. You can change the date and time formats in your operating system.

Examples

`Timestamp(Date(10;11;2008);Time(9;10;30))` returns **10/11/2008 9:10:30AM**.

`Timestamp(Date(10;11;2008);Time(13;10;30))` returns **10/11/2008 1:10:30PM**.

`Timestamp(Date(10;11;2008);Time(10;65;5))` returns **10/11/2008 11:05:05AM**.

`Timestamp(Date(10;35;2008);Time(4;5;6))` returns **11/4/2008 4:05:06AM**.

Related topics

Contents
Functions reference (alphabetical list)

Trigonometric functions

Trigonometric functions are used to calculate degrees, angles, and other geometric data.

Note All trigonometric functions use radians as the unit of measure. Once you have a result, you can convert the radians into degrees using the `Degrees` function.

Click a function name for details.

This function	Returns
Acos	The arccosine, or inverse cosine, of a number.
Asin	The arcsine, or inverse sine, of a number.
Atan	The trigonometric arc tangent, or inverse tangent, of a number.
Cos	The cosine of the specified angle.
Degrees	Degrees, converted from the specified radians.
Pi	The value of the constant Pi, which is approximately 3.14159.
Radians	Radians, converted from the specified degrees.
Sin	The sine of the specified angle.
Tan	The tangent of the specified angle.

Acos

Purpose

Returns the arccosine (`Acos`), or inverse cosine, of `number`.

Format

```
Acos (number)
```

Parameters

`number` - any numeric expression or field containing a numeric expression in the range -1 to 1

Data type returned

number

Originated in

FileMaker Pro 9.0

Description

The arccosine is the angle whose cosine is `number`. The returned angle is given in radians in the range 0 (zero) to Pi. The input number parameter must be between -1 and 1.

If you want to convert the result from radians to degrees, multiply it by 180/Pi or use the Degrees function.

Examples

`Acos(-0.5)` returns **2.0943951**.

`Acos(-0.5)*180/Pi` returns **120**.

`Degrees(Acos(-0.5))` returns **120**.

`Acos(2.0)`returns ? (not a number).

Related topics

Contents
Functions reference (alphabetical list)

Asin

Purpose

Returns the arcsine (`Asin`), or inverse sine, of `number`.

Format

```
Asin (number)
```

Parameters

`number` - any numeric expression or field containing a numeric expression in the range -1 to 1

Data type returned

number

Originated in

FileMaker Pro 9.0

Description

The arcsine is the angle whose sine is `number`. The returned angle is given in radians in the range -Pi/2 to Pi/2. The input number parameter must be between -1 and 1.

To express the arcsine in degrees, multiply the result by 180/Pi or use the Degrees function.

Examples

`Asin(-0.5)` returns **-0.523598776**.

`Asin(-0.5)*180/Pi` returns **-30**.

`Degrees(Asin(-0.5))` returns **-30**.

`Asin(2)`returns ? (not a number).

Related topics

Contents
Functions reference (alphabetical list)

Atan

Purpose

Returns the trigonometric arc tangent (`Atan`), or inverse tangent, of `number`.

Format

`Atan(number)`

Parameters

`number` - any numeric expression or field containing a numeric expression

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

The arc tangent is the angle, in radians, whose tangent is equal to the specified number.

Examples

`Atan(1)` returns **.78539816...**.

`Degrees(Atan(1))` returns **45**.

Related topics

Contents
Functions reference (alphabetical list)

Cos

Purpose

Returns the cosine (`Cos`) of `angleInRadians`.

Format

`Cos(angleInRadians)`

Parameters

`angleInRadians` - any numeric expression or field containing a numeric expression, in radians

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Examples

`Cos(1.047)` returns **.50017107...**.

`Cos(Radians(60))` returns **.5**.

Related topics

Contents
Functions reference (alphabetical list)

Degrees

Purpose

Converts `angleInRadians` to degrees.

Format

`Degrees(angleInRadians)`

Parameters

`angleInRadians` - any numeric expression or field containing a numeric expression, in radians

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Use this function to translate results of trigonometric functions from radians to degrees.

$$\mathbf{Degrees} = \frac{\mathbf{180 \bullet angleInRadians}}{\pi}$$

Examples

`Degrees(Atan(1))` returns **45**.

`Degrees(1.0472)` returns **60.00014030...**.

Related topics

Contents
Functions reference (alphabetical list)

Pi

Purpose

Calculates the value of the constant Pi (π), which is approximately 3.14159.

Format

`Pi`

Parameters

None

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Examples

`Pi * 15` returns **47.124**.

Related topics

Contents
Functions reference (alphabetical list)

Radians

Purpose

Converts `angleInDegrees` to radians.

Format

`Radians(angleInDegrees)`

Parameters

`angleInDegrees` - any numeric expression or field containing a numeric expression, in degrees

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

The parameters for FileMaker Pro trigonometric functions must be expressed in radians. If the values you want to use as parameters in a trigonometric equation are in degrees, use this function to convert them to radians first. A degree is equal to Pi/180 radians.

$$\textbf{Radians} = \frac{\pi \bullet \textbf{angleInDegrees}}{\textbf{180}}$$

Examples

`Radians(45)` returns **.78539816...**.

`Sin(Radians(30))` returns **.5**.

Related topics

Contents
Functions reference (alphabetical list)

Sin

Purpose

Returns the sine (`Sin`) of `angleInRadians` expressed in radians.

Format

`Sin(angleInRadians)`

Parameters

`angleInRadians` - any numeric expression or field containing a numeric expression, in radians

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Examples

`Sin(Radians(60))` returns **.86602**.

`Sin(.610865)` returns **.57357624...**.

Related topics

Contents
Functions reference (alphabetical list)

Tan

Purpose

Returns the tangent (`Tan`) of `angleInRadians`.

Format

`Tan(angleInRadians)`

Parameters

`angleInRadians` - any numeric expression or field containing a numeric expression, in radians

Data type returned

number

Originated in

FileMaker Pro 6.0 or earlier

Description

Use this function to calculate the `Tan` of `angleInRadians`.

Note With the `Tan` function, you cannot use values exactly equal to 90 degrees (Pi/2 radians), or multiples of 90 degrees.

$$\textbf{Tan} = \frac{\textbf{Sin}(\textbf{angleInRadians})}{\textbf{Cos}(\textbf{angleInRadians})}$$

Examples

`Tan(.13)` returns **.13073731...**.

`Tan(Radians(34))` returns **.6745085**.

Related topics

Contents
Functions reference (alphabetical list)