

# FileMaker® Pro 14

## Script Steps Reference



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## About script steps

### Creating scripts to automate tasks

Scripts can do simple tasks like setting print orientation or complex tasks like preparing a customized mailing to each client.

For example, you could define a complex set of tasks that creates a thank you email to clients in the Clients database who have made purchases in the last week. The script composes an email tailored to each client. The script switches to Preview mode and pauses so you can see what the message looks like before it is sent. The whole task is initiated by clicking a button on the Sales Entry layout.

You build scripts by selecting from a list of FileMaker Pro commands, called script steps, specifying options (if necessary), and arranging the steps in the correct order to perform the task.

### Using this script steps reference

The content in this document was originally written for FileMaker Pro 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.

Script step topics are organized by category. Each script step topic describes what the script step does, and what its options and parameters are. Each topic also shows the format for the script step and provides a usage example.

### Learning about scripts

If you're new to scripting, use the following resources to learn about scripts.

To view help topics about scripting:

- In FileMaker Pro, choose **Help** menu > **FileMaker Pro Help**. In the help window, choose **Designing and creating databases**, then choose **Creating scripts to automate tasks**. You can also search help for information about scripting.

To view all help topics about individual script steps:

- In FileMaker Pro, choose **Help** > **FileMaker Pro Help**. In the help window, choose **Reference** > **Script steps reference**.

To view answers to frequently asked questions, tips, troubleshooting advice, and more, visit the FileMaker Knowledge Base at <http://help.filemaker.com>.

## Control script steps

Control [script steps](#) control the progression of the script by letting you tell FileMaker Pro exactly what to do when and if specific conditions occur.

Use these script steps to:

- call scripts and [sub-scripts](#)
- pause and resume a script, based on defined conditions
- conditionally perform script steps using if/then/else logic
- stop a script before it's finished, if a specific condition is met
- create loops that repetitively carry out a sequence of steps in a script, until a condition is met

**Note** When you perform a script that uses the Get(LastError) function with control script steps, the following control script steps do not clear the last error condition reported by FileMaker Pro: If, Else, Else If, End If, Loop, Exit Loop If, End Loop, Exit Script, and Halt Script.

## Perform Script

### Purpose

Performs a script that is defined in the current file or in another FileMaker Pro file.

### Format

Perform Script [“<script name>”; Parameter: <parameter>]

### Options

- <script name> specifies the script you want to perform.
- **Optional script parameter** specifies a script parameter for the specified script.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Partial

### Originated in

FileMaker Pro 6.0 or earlier

### Description

There is no need to open an external file when using a script in it—FileMaker Pro opens it for you.

You can use separate scripts to break complex tasks into smaller segments, which are often easier to troubleshoot. You can also save time by putting common tasks like printing or exporting records into separate scripts, which can then be accessed by more than one script. For example, you might want to use the same page setup and printing options in several scripts. By defining those steps once and saving them in separate scripts, you make it easy to access those steps many times.

Use script parameters to pass text or numbers into a script. When a parameter is specified, that parameter may be accessed within a script or passed to other script steps using the `Get(ScriptParameter)` function.

Script parameters:

- exist within the parent script only unless explicitly passed to the [sub-script](#). If your script calls another script, parameters in the called script are independent of parameters in the parent script.
- exist only for the duration of the script. Script parameters are reset each time a script is performed.

- can be used (but not modified) within a script and can be passed along to sub-scripts by using the `Get(ScriptParameter)` function as the parameter for the sub-script. You can also specify different parameters each time the sub-script is called using `Perform Script`. Changing the parameters passed to a sub-script does not modify the value of the parameters returned from `Get(ScriptParameter)` in the parent script.
- can contain multiple values separated by carriage returns. Use the `LeftValues` function, `MiddleValues` function, and `RightValues` function to isolate a specific parameter.

**Tip** If you've performed an [external script](#) and you want to return to the original file, add an `Enter Browse Mode` step or `Go to Layout` step right after the `Perform Script` step in the original file, so that the script returns to the original file.

## Notes

- If you are using FileMaker Pro Advanced to define a custom menu item that performs a script, select the script and optional script parameters. For more information, see [Defining custom menus \(FileMaker Pro Advanced\)](#).
- A runtime solution can perform an external script only if the external file is bound to the solution.

## Example 1

Runs the "Print Invoice Report" script with no parameters.

```
Go to Layout ["Invoice Report"]
Perform Script ["Print Invoice Report"]
```

## Example 2

Uses a field value, Customer Name, as the parameter. Invoices for the current customer are returned in a new window with the Invoice Report layout.

### Main script: Current Customer Invoices

```
Find Matching Records [Replace; Invoices::Customer ID]
#Calls the "View Customer Invoices" sub-script defined below
Perform Script ["View Customer Invoices"; Parameter:
Invoices::Customer Name]
```

### Sub-script: View Customer Invoices

```
New Window [Name: "Customer: " & Get ( ScriptParameter ); Style:
Document]
Go to Layout ["Invoice Report"]
Sort Records [Restore; No dialog]
```

## Perform Script On Server

### Purpose

Performs a script on the server that is hosting the current file.

### Format

Perform Script on Server [Wait for completion; "<script name>"; Parameter: <parameter>]

### Options

- <script name> specifies the script you want to perform.
- **Optional script parameter** specifies a script parameter for the specified script.
- **Wait for completion** pauses the script on the [client](#) until the [sub-script](#) called by Perform Script On Server is completed on the [host](#). **Wait for completion** must be selected to pass a script result or error code from the host to the client. Use the Get(ScriptResult) function to capture a result or the Get(LastError) function to capture an error code.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	No

### Originated in

FileMaker Pro 13.0

### Description

The current file must be hosted on FileMaker Server. Otherwise, Perform Script On Server returns an error. Scripts performed on the host are treated as FileMaker Server scheduled scripts.

Scripts performed by Perform Script On Server:

- are not aware of the client's current layout or record. If necessary, use the [Go to Layout script step](#) and the [Go to Record/Request/Page script step](#) to specify which layout and record to act on.
- can only access global variables that are defined after the script begins running on the host.
- support script parameters and script results up to 1 million characters.

## Notes

- If records are locked by a client, scripts performed on the host cannot access uncommitted data or change the contents of those records.
- If the specified script contains the Evaluate function, use English function names in Evaluate's calculation. Evaluate does not recognize localized function names when it is evaluated in a script that is run via Perform Script on Server.

## Example 1

Runs a script on the server and sends the current layout name, record number, and customer email address as the script parameter. The server navigates to the layout and record specified in the parameter, saves a snapshot link of the current record, emails the snapshot link to the email address specified in the parameter, and returns a result. The client fetches the script result from the server and displays it in a custom dialog.

### Main script: Email snapshot link (Client)

```
Perform Script on Server [Wait for completion; "Email snapshot link
(Server)"; Parameter: List ( Get ( LayoutName ) ; Get ( RecordNumber )
; Customers::Email )]
Show Custom Dialog [Get ( ScriptResult )]
```

### Sub-script: Email snapshot link (Server)

```
Go to Layout [MiddleValues ( Get ( ScriptParameter ) ; 1 ; 1 )]
Go to Record/Request/Page [MiddleValues ( Get ( ScriptParameter ) ; 2 ;
1 )]
Set Variable [$PATH; Value:Get ( TemporaryPath ) & "Snapshot.fmpsl"]
Save Records as Snapshot Link ["$PATH"; Current record]
Send Mail [Send via SMTP Server; No dialog; To: MiddleValues ( Get (
ScriptParameter ) ; 3 ; 1 ); "$PATH"]
Exit Script [Result: "Snapshot link sent."]
```



## Pause/Resume Script

### Purpose

Pauses a script so the user can perform other tasks in the current window.

### Format

Pause/Resume Script [Indefinitely/Duration (seconds) <n>]

### Options

- **Indefinitely** pauses the script until the user clicks **Continue** (a button created by FileMaker Pro in the [status toolbar](#)) or presses Enter.
- **For duration** pauses the script for the number of seconds you specify.

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step can, for example, wait for a user to enter data, and then guide the user from screen to screen, prompting for data entry as needed. You can also use Pause/Resume Script to help debug your scripts, for example, to see what value is in a field at a particular point in a script or to evaluate the progress of a script.

The Pause/Resume Script script step operates on the foreground window of the file from which the script is performed. If the script's current window is hidden, Pause/Resume Script brings that window to the front and shows it.

The **For duration** value must evaluate as a number, which is the duration of the pause in seconds. If you use the Specify Calculation dialog box to determine the duration, the calculation result must be a number or your script will not pause.

To give you more control over a user's actions when a script pauses, FileMaker Pro makes some menu commands unavailable to users. You can define buttons to let users perform actions not available on the menus.

**Note** A Pause/Resume Script step unfreezes a Freeze Window script step.

## Example 1

Goes to the Print Invoices layout and pauses. The user can click a Continue button on the status toolbar or the layout to print the records.

```
Go to Layout ["Print Invoices"]  
Pause/Resume Script [Indefinitely]  
Print [Restore: Printer]  
Go to Layout [original layout]
```

## Exit Script

### Purpose

Forces the running script, sub-script, or external script to stop immediately.

### Format

Exit Script [Result: <value or formula>]

### Options

<value or formula> specifies a value to pass back to the parent script. The value is typically based on the state of the current script.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

If Exit Script is used in a sub-script, returns to the main script with or without an optional script result. If the optional script result is specified, the script result is returned and stored in the main script until another sub-script that returns a value is called. The script result gets deleted when you exit the main script. The script result can be stored in a local or global variable for later use.

### Example 1

Performs a find and prints. If no records are found, displays all records and exits the script.

```
Perform Find [Restore]
If [Get ( FoundCount ) = 0]
    Show All Records
    Exit Script [ ]
End If
Print [No dialog]
```

## Example 2

Prints unpaid invoices. In the Print sub-script, users can choose whether they want to print invoices. If users choose to print, then Exit Script uses a script result to enter "Printed on <current date>" in the Status field.

### Main script: Print Unpaid Invoices

```
New Window [Name: "Invoice List"; Style: Document]
Go to Layout ["Print Invoices"]
Perform Find [Restore]
#Calls the "Print" sub-script defined below
Perform Script ["Print"]
#Continues after the sub-script is completed
If [Get ( ScriptResult ) = 1]
    Replace Field Contents [No dialog; Invoices::Status; "Printed on " &
    Get ( CurrentDate )]
Else
    Show All Records
    Sort Records [Restore; No dialog]
End If
```

### Sub-script: Print

```
Show Custom Dialog ["Print Unpaid Invoices"; "Do you want to print
unpaid invoices?"]
If [Get ( LastMessageChoice ) = 1]
    Print [No dialog]
Else
    Close Window [Current Window]
End If
#Uses the Result parameter to pass the user's choice to the main script
Exit Script [Result: Get ( LastMessageChoice )]
```

## Halt Script

### Purpose

Forces all scripts, sub-scripts, or external scripts running in the current FileMaker application to stop immediately.

### Format

Halt Script

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Halt Script can leave your database in an unpredictable state. For example, the script might halt in an unanticipated layout, view, or mode.

### Example 1

Performs a find and prints. If no records are found, displays all records and halts the script.

```
Perform Find [Restore]
If [Get ( FoundCount ) = 0]
    Show All Records
    Halt Script
End If
Print [No dialog]
```

## Example 2

The Print Unpaid Invoices script calls the Print sub-script. If the user chooses not to print invoices, the script and sub-script stop. If the user chooses to print invoices, unpaid invoices that match the Find criteria are printed. After printing, all records are displayed and sorted.

### Main script: Print Unpaid Invoices

```
New Window [Name: "Invoice List"; Style: Document]
Go to Layout ["Print Invoices"]
Perform Find [Restore]
#Calls the "Print" sub-script defined below
Perform Script ["Print"]
#Continues after the sub-script is completed if the user chose to print
the invoices
Show All Records
Sort Records [Restore; No dialog]
```

### Sub-script: Print

```
Show Custom Dialog ["Print Unpaid Invoices"; "Do you want to print
unpaid invoices?"]
If [Get ( LastMessageChoice ) = 1]
    Print [No dialog]
Else
    Close Window [Current Window]
    #Halts both the sub-script and the main script
    Halt Script
End If
```

## If

### Purpose

Evaluates a Boolean calculation and performs a conditional action based on that evaluation.

### Format

If [*Boolean calculation*]

### Options

*Boolean calculation* specifies the calculation you want evaluated.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

If the calculation result is any number except zero, the calculation evaluates to true and the subsequent script steps are executed. If the calculation result is zero, no data, or does not resolve into a number, then the calculation evaluates to false and the subsequent script steps are not executed.

Every If step must have a corresponding [End If script step](#) somewhere after the If step and at the same indentation. Whenever you use an If script step, the script editing pane automatically enters an End If step.

You can also add additional conditions by using the [Else If script step](#) and [Else script step](#).

**Note** If you do not specify a calculation or if the calculation is unsuccessful, it will evaluate as false. Use the `Get(LastError)` function to capture these errors.

### Example 1

Performs a find. If no records are found, displays all records and sorts.

```
Perform Find [Restore]
If [Get (FoundCount) = 0]
    Show All Records
    Sort Records [Restore; No dialog]
End If
```

## Example 2

Performs a find. If no records are found, displays a custom dialog. If records are found, sorts the found set.

```
Perform Find [Restore]
If [Get ( FoundCount ) = 0]
    Show Custom Dialog ["Find Records"; "No records were found."]
Else
    Sort Records [Restore; No dialog]
End If
```

## Example 3

Performs a find. If no records are found, displays a custom dialog. If one record is found, goes to the Invoice Details layout. If more than one record is found, goes to the Invoices layout.

```
Perform Find [Restore]
If [Get ( FoundCount ) = 0]
    Show Custom Dialog ["Find Records"; "No record was found."]
Else If [Get ( FoundCount ) = 1]
    Go to Layout ["Invoice Details"]
Else
    Go to Layout ["Invoices"]
End If
```

## Example 4

Performs a find. If no records are found, displays a custom dialog so the user can run the Find Invoices script to search again. If one record is found, goes to the Invoice Details layout. If more than one record is found, goes to the Invoices layout.

### Script: Find Invoices

```
Perform Find [ ]
If [Get ( FoundCount ) = 0]
    Show Custom Dialog ["No Record Found"; "No records were found. Do you want to search again?"]
    If [Get ( LastMessageChoice ) = 1]
        #Calls this script again as a sub-script
        Perform Script ["Find Invoices"]
    Else
        Show All Records
    End If
Else If [Get ( FoundCount ) = 1]
    Go to Layout ["Invoice Details"]
Else
    Go to Layout ["Invoices"]
End If
Sort Records [Restore; No dialog]
```



## Else If

### Purpose

Evaluates a Boolean calculation and performs a conditional action based on that evaluation, like If.

### Format

Else If [*<Boolean calculation>*]

### Options

*<Boolean calculation>* specifies the calculation you want evaluated.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Else If must follow an If or another Else If script step. Else If cannot follow an [Else script step](#).

When an If script step evaluates to false, script execution moves to the Else If script step. When an Else If statement evaluates to true, the block of steps under the Else If is executed. An evaluation of true ends the Else If process, and upon reaching the next Else If or Else statement, execution will skip to the [End If script step](#).

### Example 1

Performs a find and sorts records. If no records match the find request, displays a custom dialog.

```
Perform Find [Restore]
If [ Get ( LastError ) = 0 ]
    Sort Records [Restore; No dialog]
Else If [ Get ( LastError ) = 401 ]
    Show Custom Dialog ["No records were found."]
End If
```

## Else

### Purpose

Performs an alternate set of script steps when an If or Else If script step evaluates to false.

### Format

Else

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Else must follow an If script step or Else If script step. Else cannot follow another Else script step.

When all If script steps and Else If script steps evaluate to false, script execution moves to the Else script step. The script steps under Else are executed, and script execution moves to the [End If script step](#).

### Example 1

Performs a find. If no records are found, displays a custom dialog. If records are found, sorts the found set.

```
Perform Find [Restore]
If [Get ( FoundCount ) = 0]
    Show Custom Dialog ["Find Records"; "No records were found."]
Else
    Sort Records [Restore; No dialog]
End If
```

## End If

### Purpose

Marks the end of an If script step structure.

### Format

End If

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Every If script step must have a corresponding End If script step somewhere after it at the same indentation. Whenever you use an If script step, the script editing pane automatically enters an End If step.

### Example 1

Performs a find. If no records are found, displays all records and sorts.

```
Perform Find [Restore]
If [Get (FoundCount) = 0]
    Show All Records
    Sort Records [Restore; No dialog]
End If
```

## Loop

### Purpose

Repeats a set of script steps, to perform batch processes.

### Format

Loop

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Use Loop, for example, for exporting container field contents from all records in a found set. This script step and the [End Loop script step](#) mark the beginning and end of a repeating structure of script steps. The script performs the script steps that are enclosed within the loop structure until it encounters one of the following:

- an [Exit Loop If script step](#)
- a [Go to Record/Request/Page script step](#) or [Go to Portal Row script step](#) when the **Exit after last** option is selected

Every Loop step must have a corresponding End Loop step somewhere after the Loop step and at the same indentation. Whenever you use a Loop script step, the script editing pane automatically enters an End Loop step.

### Example 1

Copies the contents of the Customers::Work Phone to Customer::Day Contact in all records.

```
Go to Record/Request/Page [First]
Loop
    Set Field [Customers::Day Contact; Customers::Work Phone]
    Go to Record/Request/Page [Next; Exit after last]
End Loop
```

## Example 2

Loops through records to export files that are in the Container field.

```
Set Variable [$PATH; Value: Get ( DocumentsPath ) & Products::Container]
Go to Record/Request/Page [First]
Loop
    Export Field Contents [Products::Container; "$PATH"]
    Go to Record/Request/Page [Next; Exit after last]
End Loop
```

## Exit Loop If

### Purpose

Exits a loop if the specified calculation is true (not zero).

### Format

Exit Loop If [*Boolean calculation*]

### Options

*Boolean calculation* specifies the calculation you want evaluated.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

If the calculation is true (not zero), the script continues with the script step that follows the End Loop script step.

If the calculation is false (zero), the loop is not exited and the script continues with the script step that follows the Exit Loop If script step.

### Example 1

Loops through records to export files that are in container fields. Exits the loop if a record has an empty Container field.

```
Set Variable [$PATH; Value: Get ( DocumentsPath ) & Products::Container]
Go to Record/Request/Page [First]
Loop
  Exit Loop If [IsEmpty ( Products::Container )]
  Export Field Contents [Products::Container; "$PATH"]
  Go to Record/Request/Page [Next; Exit after last]
End Loop
```

## End Loop

### Purpose

Marks the end of a Loop script structure.

### Format

End Loop

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Whenever you use a Loop script step, the script editing pane automatically enters an End Loop step. The steps between Loop and End Loop are automatically indented and the End Loop step is placed at the same indentation level as its corresponding Loop step.

### Example 1

Copies the data from Customers::Work Phone to Customers::Day Contact in all records.

```
Go to Record/Request/Page [First]
Loop
    Set Field [Customers::Day Contact; Customers::Work Phone]
    Go to Record/Request/Page [Next; Exit after last]
End Loop
```

## Allow User Abort

### Purpose

Allows or prevents users from stopping a running script.

### Format

Allow User Abort [*<on or off>*]

### Options

- **On** allows users to stop a script by pressing Esc or Command-.(period) (OS X).
- **Off** prevents users from stopping a script by pressing Esc or Command-.(period) (OS X).

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

The Allow User Abort script step affects the script that it is executed in and all [sub-scripts](#).

By default, users can stop a script by pressing Esc or Command-.(period) (OS X). To prevent users from stopping a script, use the Allow User Abort script step and set it to **Off**.

The Allow User Abort script step also controls whether unknown (obsolete or unrecognized) script steps stop the script. If this script step is set to **On** or is not included, unknown script steps will stop the script; if **Off**, unknown script steps are skipped and the script continues to execute.

### Example 1

Displays the records in the Print Invoices layout in a new window in Preview mode and pauses the script. You can click Continue to print the invoices, or you can cancel printing in the Print dialog box because the Print script step does not specify "Perform without dialog." Allow User Abort is Off so that you aren't left with an extra window open if you cancel the script.

```
Allow User Abort [Off]
New Window [Name: "Print Invoices"; Style: Floating Document]
Go to Layout ["Print Invoices"]
Enter Preview Mode [Pause]
Print [Restore: Printer]
Close Window [Current Window]
```



## Set Error Capture

### Purpose

Suppresses or enables normal FileMaker Pro alert messages.

### Format

Set Error Capture [*<on or off>*]

### Options

- **On** suppresses FileMaker Pro alert messages and some dialog boxes. If the error result is 100 or 803, then certain standard file dialog boxes are suppressed, such as the Open File dialog box.
- **Off** re-enables the alert messages.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Use this script step to handle errors in a manner consistent with the functions the script performs. By using the Get(LastError) function immediately after a script step, you can verify that the step was performed properly.

By using the Get (LastError) function with the control script steps, you can make sure your script performs correctly. When you decide to suppress alerts, it is important that you anticipate as many problems as possible and include clear instructions for what to do when an error condition is encountered.

### Notes

- Use Get (LastError) immediately after the script step you intend to test; a successful intervening step may clear the error code you were intending to capture.
- When Set Error Capture is used in a script that contains a sub-script, errors from the sub-script are captured as well.

## Example 1

Performs a find and suppresses the error dialog if no records were found.

```
Set Error Capture [On]
Perform Find [Restore]
```

## Example 2

Performs a find. If no errors occur, sorts records. If no find criteria were specified, shows all records. If no records match the find request, displays a custom dialog.

```
Set Error Capture [On]
Perform Find [Restore]
If [Get ( LastError ) = 0]
    Sort Records [Restore; No dialog]
Else If [Get ( LastError ) = 400]
    Show All Records
Else If [Get ( LastError ) = 401]
    Show Custom Dialog ["Find"; "No records were found."]
End If
```

## Set Variable

### Purpose

Sets a local or global variable to a specified value.

### Format

Set Variable [*<variable name>* {[*<repetition number>*]}; Value:*<value or formula>*]

### Options

- **Name** is the name of the variable you want to create. Prefix the name with \$ for a local variable or \$\$ for a global variable. If no prefix is added, \$ is automatically added to the beginning of the name.
- **Value** is the value the variable is set to. You can enter text or specify a calculation.
- **Repetition** is the repetition (index) number of the variable you want to create. If no repetition is specified, the default is 1.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 8.0

### Description

If a variable doesn't exist, this script step will create one. A variable name has the same naming restrictions as a field name. For more information, see [About naming fields](#).

Local and global variables can be created and used in calculations.

- A local variable can only be used in script steps in the currently executing script. The value in a local variable is cleared when the script exits.
- A global variable can be used in a calculation or script anywhere in a file, for example, other scripts or [file paths](#). The value of a global variable is not cleared until the file is closed.
- Local and global variables (or even two local variables in different scripts) can have the same name but they are treated as different variables and can store different values.

### Example 1

Creates a related record by using a local variable to copy information into a match field.

```
Set Variable [$CURRENT_CUSTOMER_ID; Value: Customers::Customer ID]
Go to Layout ["Invoice Details"]
New Record/Request
Set Field [Invoices::Customer ID; $CURRENT_CUSTOMER_ID]
```

### Example 2

Uses a local variable to save records as Excel or PDF files in the Documents folder.

```
Show Custom Dialog ["Save the current record as Excel or PDF?"]
If [Get ( LastMessageChoice ) = 1]
    Set Variable [$PATH; Value: Get ( DocumentsPath ) & "Invoice " &
Invoice::Invoice Number & ".xlsx"]
    Save Records as Excel [Restore; "$PATH"; Current record]
Else
    Set Variable [$PATH; Value: Get ( DocumentsPath ) & "Invoice " &
Invoice::Invoice Number & ".pdf"]
    Save Records as PDF [Restore; "$PATH"; Current record"]
End If
```

### Example 3

Uses global variable as a toggle to stop a script from being triggered.

#### Script: Go to Selected Invoice for iOS

```
Set Variable [$$SCRIPT_TRIGGER; Value: "Off"]
Go to Layout ["Invoice Details iPad"]
```

#### Script: Trigger Entering Invoice Details

```
If [$$SCRIPT_TRIGGER = "Off"]
    Set Variable [$$SCRIPT_TRIGGER; Value: "On"]
    Exit Script [ ]
End If
Find Matching Records [Replace; Invoices::Customer Name]
Go to Record/Request/Page [First]
```

## Set Layout Object Animation

### Purpose

Enables or disables animations while a script is running.

### Format

Set Layout Object Animation [*on or off*]

### Options

- **On** enables [animations](#) while a script is running.
- **Off** disables animations while a script is running.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 13.0

### Description

Enabling animations increases the time required for a script to run. Disabling animations overrides any animation settings for other script steps. This script step affects all script-initiated animations in all windows.

**Note** Set Layout Object Animation does not return an error when it runs in a FileMaker product in which animations are not supported.

### Example 1

While a script is running, animations are typically disabled. If a script causes a slide control to switch between panels, there will be no animation providing feedback to users. To call attention to the transition from panel to panel, use Set Layout Object Animation [On] to enable animation prior to switching between slide panels using the [Go to Object script step](#).

```
Set Layout Object Animation [On]
Go to Object [Object Name: "Panel 1"]
Pause/Resume Script [Duration (seconds): .5]
Go to Object [Object Name: "Panel 2"]
Pause/Resume Script [Duration (seconds): .5]
Go to Object [Object Name: "Panel 3"]
```

## Install OnTimer Script

### Purpose

Runs a specified script at the specified interval.

### Format

```
Install OnTimer Script ["<script>"; Parameter: <script parameter>;
Interval: <number>]
```

### Options

- **Specify script** lets you specify the script you want to perform.
- **Optional script parameter** lets you specify a script parameter for the specified script.
- **Interval seconds** is the value in seconds that the timer waits before running the script.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 10.0

### Description

This script step installs a single timer on the active window and repeats the specified script in that window until another Install OnTimer Script step installs a timer on the window or until the window closes. You can halt an installed timer by running another Install OnTimer Script step without specifying a script or interval.

### Notes

- If a script is running, any scripts associated with timers will not run until the script that is running finishes.
- To run scripts on a schedule and independently of open windows, see FileMaker Server Help.

## Example 1

Uses the Install OnTimer Script step to run the Clock script once every minute.

### Script: Clock OnTimer

```
Install OnTimer Script ["Clock"; Interval: 60]
```

### Script: Clock

```
Set Field [Clock::Time; Get ( CurrentTime )]
```

## Navigation script steps

Navigation [script steps](#) move to different areas of a database. Use Navigation script steps to:

- go to a specific record or [find request](#)
- switch to a specific layout
- move among fields and other objects on a layout
- emulate pressing Enter or Tab
- switch to Browse mode to work with contents of a file
- switch to Find mode to fill out find requests
- switch to Preview mode to see how records, forms, or reports will look when they're printed



## Go to Layout

### Purpose

Switches to the specified layout.

### Format

Go to Layout ["<layout name or layout number>"]

### Options

- **original layout** is the active layout when the script is initiated.
- **Layout** specifies a layout by name from the list of layouts you've defined in your file.
- **Layout Name by calculation** specifies a formula whose result is a valid layout name.
- **Layout Number by calculation** specifies a formula whose result is a valid layout number. (Layout numbers correspond to the order of the layouts in the file.)

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step is useful when you begin a script to make sure the user starts with the correct layout displayed.

### Notes

- The Go to Layout script step can only take you to layouts defined in the same file as the script itself. To go to layouts in an external file, define a script in that file using the Go to Layout script step, and call that script from the first file using the [Perform Script script step](#).
- Layout Name by calculation recognizes layouts with the same names in the order in which they were created. If you have multiple layouts with the same name, either select the specific layout you want from the layout list or use Layout Number by calculation.
- Define an unstored calculation field with the function Get(LayoutNumber) function and place it on your layouts to verify the layout numbers of your layouts.
- When a file has two or more tables, FileMaker Pro appends the name of the source table to the layout name for clarity. For example, Go to Layout ["Layout #2" (TableB)].

### Example 1

Opens a new window and goes to the Summary field on the Invoice Details layout.

```
New Window [Style: Document]
Go to Layout ["Invoice Details"]
Go to Field [Invoices::Summary]
```

### Example 2

Checks which device is running the database and goes to the appropriate layout.

```
If [PatternCount ( Get ( ApplicationVersion ); "iPad" )]
    Go to Layout ["Customers iPad"]
Else If [PatternCount ( Get ( ApplicationVersion ); "Pro" )]
    Go to Layout ["Customers"]
Else
    Go to Layout ["Customers iPhone"]
End If
Sort Records [Restore; No dialog]
```

## Go to Record/Request/Page

### Purpose

Moves to a record or a report page, or displays a find request.

### Format

Go to Record/Request/Page [*<First/Last/Previous/Next/By calculation>*]

### Options

- **First** moves to the first record in the file or [found set](#) (Browse mode), displays the first [find request](#) (Find mode), or moves to the first page in a report (Preview mode).
- **Last** moves to the last record in the file or found set, displays the last find request, or moves to the last page in a report.
- **Previous** moves to the previous record in the file or found set, displays the previous find request, or moves to the previous page in a report. **Exit after last** tells FileMaker Pro to stop the script when it reaches the last record in the found set. You can use **Exit after last** with the Loop script step to exit out of a loop after the last record.
- **Next** moves to the next record in the file or found set, displays the next find request, or moves to the next page in a report. **Exit after last** tells FileMaker Pro to exit the script or control structure (like a loop) when it reaches the last record in the found set.
- **By Calculation** specifies a calculation to determine the desired record number, find request number, or page number.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Yes
Custom Web Publishing	Partial
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

In Browse mode, this script step moves to a record; in Find mode it displays a find request, and in Preview mode it moves to a report page.

FileMaker Server scheduled script and Customer Web Publishing do not support the **By Calculation** option.

### Example 1

Performs a find, sorts the records, and goes to the first record.

```
Perform Find [Restore]
Sort Records [Restore; No dialog]
Go to Record/Request/Page [First]
```

### Example 2

Goes to the record number the user enters in the custom dialog.

```
Show Custom Dialog ["Enter the record number you want to view.";
Invoices::Record Number]
Go to Record/Request/Page [Invoices::Record Number]
Show All Records
```

### Example 3

Loops through records to export files that are in the Container field. Exits the loop if a record has an empty container field.

```
Set Variable [$PATH; Value: Get ( DocumentsPath ) & Products::Container]
Go to Record/Request/Page [First]
Loop
    Exit Loop If [IsEmpty ( Products::Container )]
    Export Field Contents [Products::Container; "$PATH"]
    Go to Record/Request/Page [Next; Exit after last]
End Loop
```

## Go to Related Record

### Purpose

Goes to the current related record(s) in a related table.

### Format

Go to Related Record [From table: "<table name>"; Using layout "<layout name>"; New window]

### Options

- **Get related record from** specifies the source relationship from a list of tables in the current database. If the table is not in the list or if you need to add or change a relationship, **Manage Database** displays the Manage Database dialog box, where you can create or edit relationships.
- **Show record using layout** specifies the layout in the current file that will be used to display the [related record\(s\)](#).
- **Use external table's layouts** opens the file containing the external table you specify and lets you choose a layout from that file in which to display the related record(s). This option is only available if the source relationship you selected references a table in another file.
- **Show in new window** shows the related records in a new window and lets you specify the settings for the new window. For more information, see [New Window script step](#).

**Tip** To bring the new window with the related record(s) to the front automatically, add the [Select Window script step](#).

- **Show only related records** creates a new [found set](#) in the [related table](#) with the options either to match the current record or to match the entire found set. The first record in the found set becomes the current record. (If you don't select this option, Go to Related Record makes the first record in the table's unsorted order the current record.)
- **Match current record only** creates a new found set in the related table containing a set of records that match the current record. For example, if there are three records in the related invoice table that match the customer record in the customer table you are currently viewing, and you want to see all three invoices, use **Match current record only** to display the three invoices.
- **Match all records in the current found set** creates a new found set in the related table that matches all records in the current found set. For example, if you have a found set of ten customers and there are forty invoices in the invoice table that match any of these ten customers, use **Match all records in the current found set** to display the forty matching invoices. If you don't define a sort order, the found set will be unsorted.

## Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

## Originated in

FileMaker Pro 6.0 or earlier

## Description

Suppose you have an Invoices table that's related to a Customers table and you're currently looking at a particular invoice. In the Invoices table, you have a button that's set to Go to Related Record [Customers]. Clicking this button determines which customer record your current invoice is related to and immediately goes to that record in the Customers table. If the record in question is not currently in the Customers table's found set, the script can perform a find to make the record current.

**Tip** If the related records cannot be found, this script step returns an error code which can be captured with the Get(LastError) function.

This script step also works with [portal](#) rows. If this script step is used from an active portal row, and the portal's table is the related table, then the related record in that table is made current. If the portal's table is not the related table, the first related record in the found set is made current.

When used with a table in an external file, this script step will open the file containing the external table and, if selected, go to the external layout you specify.

There are situations in which a script containing the Go to Related Record script step could modify an unintended set of records. For example:

- If the related records cannot be found, this script step remains on the current layout.
- If you select a table occurrence to which there's no relationship, or a layout that doesn't refer to the correct table occurrence, FileMaker Pro displays an error message. After the error message displays, script execution continues with the next script step.
- If there are no related records or no record in the active portal row, the script might produce unexpected results. Use the IsEmpty function to determine if there are no related records before using Go to Related Record.
- If you have **Allow creation of related records** enabled and Go to Related Record is executed from an empty portal row, the script might produce unintended results.

## Notes

- The sort order is not maintained if the related records are in an external file.
- If you are filtering records in a portal, this script step exposes all of the records, not just the filtered records.

### Example 1

Goes to a related record in the Invoices table and sorts the found set of related records.

```
Go to Related Record [Show only related records; From table: "Invoices";  
Using layout: "Invoices"]  
Sort Records [Restore; No dialog]  
Go to Record/Request/Page [First]
```

### Example 2

Goes to a related record in the Invoices table and sorts the found set of related records in a new window.

```
Go to Related Record [Show only related records; From table: "Invoices";  
Using layout: "Invoices"; New Window]  
Sort Records [Restore; No dialog]  
Go to Record/Request/Page [First]
```

## Go to Portal Row

### Purpose

Navigates among the rows in the active portal.

### Format

Go to Portal Row [Select; <First/Last/Previous/Next/By Calculation>]

### Options

- **Select entire contents** selects the entire portal row. If select entire contents isn't selected, only one related field in the portal is active.
- **First** moves to the first row in the [portal](#).
- **Last** moves to the last row in the portal.
- **Previous** moves to the previous row in the portal. **Exit after last** tells FileMaker Pro to exit the script when it reaches the last portal row. You can use **Exit after last** within a loop to exit the loop after the last portal row.
- **Next** moves to the next row in the portal. **Exit after last** tells FileMaker Pro to exit the script when it reaches the last portal row. You can use **Exit after last** within a loop to exit the loop after the last portal row.
- **By Calculation** moves to the row number that is the result of the calculation you create, or to the row number specified in a dialog.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Yes
Custom Web Publishing	Partial
FileMaker WebDirect	Partial
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

When no portal is active, the script uses the first portal in the layout stacking order.

This script step tries to keep the same [related field](#) selected when changing rows. If no field in a portal is selected, the script selects the first related field it can enter.

When a related field in a portal is selected, you can use this step to move to the same field in another portal row. For example, if the third field in the second portal row is selected, Go to Portal Row [Next] goes to the third field in the third portal row.



## Notes

- In FileMaker WebDirect, the cursor moves next to the specified row, but the row is not selected.
- FileMaker Server scheduled scripts and Custom Web Publishing do not support the **By Calculation** option.

## Example 1

Goes to the last row of a portal to create a record.

```
Go to Field [Related Invoices::Summary]
Go to Portal Row [Last]
```

## Example 2

Allows a user to make batch updates to the Status field in a portal.

```
Go to Portal Row [Select; First]
Loop
  Go to Field [Select/perform; Invoices::Status]
  Pause/Resume Script [Indefinitely]
  Go to Portal Row [Next; Exit after last]
End Loop
```

## Go to Object

### Purpose

Moves to the specified object on the current layout.

### Format

Go to Object [Object Name: "<object name>"; Repetition: <value or formula>]

### Options

- **Object Name** is the named [object](#) to make active on the current layout. To assign an object name, choose **View** menu > **Inspector** in Layout mode. Click **Position**, then enter a name for the object.
- **Repetition** (optional) lets you choose a field's repetition to go to. Otherwise defaults to 1. This option is ignored if the object is not a field.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 8.5

### Description

This script step uses an object name to identify an object, so you must assign a unique object name to each object on a layout that you want to go to.

### Notes

- If this script step specifies an object on a [tab panel](#) or a [slide panel](#) that is not the front-most panel, the specified object is selected and the panel it is on moves to the front of the [panel control](#).
- If the script step specifies a field on a [popover](#), the popover opens.

### Example 1

Navigates to a text field named "First Name".

Go to Object [Object Name: "First Name"]

## Example 2

Navigates between different tabs of a tab control.

```
If [Invoices::Status = "Paid"]
  Go to Object [Object Name: "Invoice Statement Tab"]
Else If [Invoices::Status = "Unpaid"]
  Go to Object [Object Name: "Invoice Payment Tab"]
End If
```

## Example 3

Navigates to either the "Paid" tab or the "Unpaid" tab in a tab control depending on the value of Invoices::Status.

```
Go to Layout ["Invoice Details"]
Go to Object [Object Name: Invoices::Status]
```

## Go to Field

### Purpose

Moves to the specified field on the current layout.

### Format

Go to Field [Select/perform; <table::field>]

### Options

- **Select/perform** tells FileMaker Pro to perform an action on the contents of a field. All text in a field is selected with this option. The contents of the field (sound or movie) determine what action is performed. If the field contains a sound, then the sound is played. If the field contains a movie, the movie is played. For example, if the primary command is Edit, **Select/perform** opens the document in a state ready for editing.
- **Go to target field** specifies the target field.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

To play a sound or movie, use the **Select/perform** option.

### Notes

- If this script step specifies a field on a [tab panel](#) or a [slide panel](#) that is not the front-most panel, the specified field is selected and the panel it is on moves to the front of the [panel control](#). If, however, the same field appears elsewhere on the layout and the script finds that field first, the panel with that same field will not come forward. You can force FileMaker Pro to find a specific field by assigning an object name to the field and using the [Go to Object script step](#) to move to that instance of the field. If the object is a repeating field, you can also specify which repetition that you want to go to.
- If the script step specifies a field on a [popover](#), the popover opens.

- In FileMaker WebDirect:
  - The cursor moves to the specified field.
  - If the target field is not visible in the web browser window, Go to Field does not scroll the window to make the target field visible.

### Example 1

Goes to the Invoice Details layout, creates a record, and goes to the Summary field.

```
Go to Layout ["Invoice Details"]  
New Record/Request  
Go to Field [Invoices::Summary]
```

## Go to Next Field

### Purpose

Moves to the next field in the tab order of the current layout.

### Format

Go to Next Field

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

If no field is selected when this script step is performed, this script step moves to the first field in the tab order of the current layout. If a field is formatted as a button, the field object is selected, not the button object.

**Note** In FileMaker WebDirect, the cursor moves to the selected field.

### Example 1

Goes to the next field in the tab order unless the Status field in the current record is empty.

```
If [IsEmpty ( Invoices::Status )]
    Show Custom Dialog ["Invoice Status cannot be empty."]
Else
    Go to Next Field
End If
```

## Go to Previous Field

### Purpose

Moves to the previous field in the tab order of the current layout.

### Format

Go to Previous Field

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

If no field is selected when this script step is performed, this script step moves to the last field of the tab order of the current layout. If a field is formatted as a button, the field object is selected, not the button object.

**Note** In FileMaker WebDirect, the cursor moves to the selected field.

### Example 1

Controls field entry validation. Can be started with the OnObjectExit script trigger.

```
If [IsEmpty ( Customers::First Name )]
    Show Custom Dialog ["You must enter a first name."]
    Go to Previous Field
End If
```

## Close Popover

### Purpose

Closes an open popover in the window in which the script step runs.

### Format

Close Popover

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 13.0

### Description

Closes an open [popover](#) in the target window. If no popover is open, Close Popover does nothing and does not return an error code.

### Example 1

Closes the open popover and navigates to either the "Paid" or the "Unpaid" tab of a tab control depending on the value of Invoices::Status.

```
Close Popover
Go to Object [Object name: Invoices::Status]
```



## Enter Browse Mode

### Purpose

Switches to Browse mode.

### Format

Enter Browse Mode [Pause]

### Options

**Pause** temporarily stops the script so the user can enter data.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Yes
Custom Web Publishing	Partial
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Example 1

Goes to the Print invoices layout, enters Preview mode, prints, and enters Browse mode.

```
Go to Layout ["Print Invoices"]
Enter Preview Mode [Pause]
Print [No dialog]
Enter Browse Mode [ ]
```

## Enter Find Mode

### Purpose

Switches to Find mode.

### Format

Enter Find Mode [Restore; Pause]

### Options

- **Pause** temporarily stops the script to allow the user to enter a [find request](#).
- **Specify find requests** allows you to create and edit requests for use with this script step.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Yes
Custom Web Publishing	Partial
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

When you select **Specify find requests** at the time the script step is defined, FileMaker Pro displays the current find request(s), if any. Additional find requests can be defined, and existing find requests can be duplicated, edited, or deleted.

To edit a find request, select it from the list in the Specify Find Requests dialog box and click **Edit**.

In the Edit Find Requests dialog box, select the action (**Find Records** or **Omit Records**) you want the find request to perform. A single find request can either find records or omit records, but cannot perform both actions at the same time. Use multiple find requests to find and omit records from within a single script step.

For each field in your request, specify the criteria for which you want FileMaker Pro to search.

### Example 1

Goes to the Invoice Details layout, enters Find mode, pauses for user input, and performs the find.

```
Go to Layout ["Invoice Details"]
Enter Find Mode [Pause]
Perform Find [ ]
```

## Enter Preview Mode

Switches to Preview mode.

### Format

Enter Preview Mode [Pause]

### Options

**Pause** temporarily stops the script to allow you to examine the preview result before proceeding with the next step in the script.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Example 1

Opens the Print Invoices layout in a new window, enters Preview mode, prints, and closes the window.

```
New Window [Style: Floating Document]
Go to Layout ["Print Invoices"]
Enter Preview Mode [Pause]
Print [No dialog]
Close Window [Current Window]
```

## Editing script steps

With editing [script steps](#), you can cut, copy, paste, or clear the contents of a field; undo or redo previous actions; or select the contents of a field.

## Undo/Redo

### Purpose

Reverses, restores, or switches between the most recently performed actions in the file.

### Format

Undo/Redo [Undo/Redo/Toggle]

### Options

- **Undo** reverses the previously performed action in the file.
- **Redo** restores the previously undone action in the file.
- **Toggle** switches between the two most recently performed actions in the file.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Multiple actions can be undone by repeatedly executing this script step with the Undo option. The number of actions that can be undone or redone is limited only by the amount of available memory.

### Example 1

Undoes data entry if the Phone Number field has fewer than seven digits.

```
If [Length ( Customer::Phone Number ) < 7]
    Show Custom Dialog ["Phone Number must contain at least 7 digits. Undo
number input?"]
    If [Get ( LastMessageChoice ) = 1]
        Undo/Redo [Undo]
    End If
End If
```

## Cut

### Purpose

Deletes the contents of the specified field in the current record and saves the contents to the Clipboard.

### Format

```
Cut [Select; <table::field>]
```

### Options

- **Select entire contents** deletes the contents of a field in the current record and saves it to the Clipboard. If you do not use **Select entire contents**, only the selected portion of the field's data is cut.
- **Go to target field** specifies the field whose contents you want to cut.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Partial
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step removes the contents of the field. To duplicate the field information, use the [Copy script step](#).

### Notes

- Contents that you cut or copy to the Clipboard are accessible to other applications.
- With FileMaker WebDirect, the Cut script step does not place data onto the [Clipboard](#).
- If you manually select field data before you run this script step in FileMaker WebDirect, the script step performs as if you did not make a selection. To select field data before you run this script step in FileMaker WebDirect, use the [Set Selection script step](#).

### Example 1

Cuts the contents of the Email field in the current record.

```
Cut [Customers::Email]
```

## Example 2

Prompts the user to either cut or copy the contents of the Email field.

```
Show Custom Dialog ["Do you want to cut or copy the customer's email  
address?"]  
If [Get ( LastMessageChoice ) = 1]  
    Cut [Customers::Email]  
Else If [Get ( LastMessageChoice ) = 2]  
    Copy [Customers::Email]  
End If
```

## Copy

### Purpose

Copies the contents of the specified field in the current record and saves the contents to the Clipboard.

### Format

Copy [Select; <table::field>]

### Options

- **Select entire contents** copies the entire contents of a field in the current record to the Clipboard. If you do not use **Select entire contents**, only the selected portion of the field's data is copied.
- **Go to target field** specifies the field whose contents you want to copy. When no field is specified and nothing is selected, FileMaker Pro copies the values from all fields of the current record.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Partial
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step duplicates the contents of the field. To remove the field information, use the [Cut script step](#).

### Notes

- Contents that you cut or copy to the Clipboard are accessible to other applications.
- With FileMaker WebDirect, the Copy script step does not place data onto the [Clipboard](#).
- If you manually select field data before you run this script step in FileMaker WebDirect, the script step performs as if you did not make a selection. To select field data before you run this script step in FileMaker WebDirect, use the [Set Selection script step](#).



## Example 1

Prompts the user to either cut or copy the contents of the Email field.

```
Show Custom Dialog ["Do you want to cut or copy the customer's email  
address?"]  
If [Get ( LastMessageChoice ) = 1]  
    Cut [Customers::Email]  
Else If [Get ( LastMessageChoice ) = 2]  
    Copy [Customers::Email]  
End If
```

## Paste

### Purpose

Pastes the contents of the Clipboard into the specified field in the current record.

### Format

Paste [Select; No style; <table::field>]

### Options

- **Select entire contents** replaces the contents of a field with the contents of the Clipboard. If you do not use **Select entire contents**, Paste copies the contents of the Clipboard to the currently selected portion of the field.
- **Paste without style** tells FileMaker Pro to ignore all text style and formatting associated with the Clipboard contents.
- **Go to target field** specifies the field to paste into.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Partial
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

If you try to paste data that doesn't match the [field type](#) of the target field, FileMaker Pro pastes the data but displays a validation alert when you attempt to exit the field. If the field is not on the current layout, FileMaker Pro returns an error code which can be captured with the Get(LastError) function.

**Note** If you manually select field data before you run this script step in FileMaker WebDirect, the script step performs as if you did not make a selection. To select field data before you run this script step in FileMaker WebDirect, use the [Set Selection script step](#).

### Example 1

Pastes the Clipboard contents into the active field.

```
Show Custom Dialog ["Do you want to paste the Clipboard contents?"]
If [Get ( LastMessageChoice ) = 1]
    Paste [Select]
End If
```

## Clear

### Purpose

Deletes the contents of the specified field in the current record.

### Format

Clear [Select; <table::field>]

### Options

- **Select entire contents** deletes the entire contents of a field. If you do not use **Select entire contents**, only the selected portion of the field's data is deleted.
- **Go to target field** specifies the field whose contents you want to delete.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Partial
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step removes the contents of the field in the current record without placing the contents on the Clipboard. If you want to cut and paste the field information, use the [Cut script step](#). Use Undo immediately to restore the contents.

**Note** If you manually select field data before you run this script step in FileMaker WebDirect, the script step performs as if you did not make a selection. To select field data before you run this script step in FileMaker WebDirect, use the [Set Selection script step](#).

### Example 1

Clears the Email field in the current record.

```
Show Custom Dialog ["Do you want to clear the customer's email address?"]
If [Get ( LastMessageChoice ) = 1]
    Clear [Select; Customers::Email]
End If
```

## Set Selection

### Purpose

Designates the starting and ending position of a selection in a field.

### Format

Set Selection [*<table::field>*; Start Position: *<n>*; End Position: *<n>*]

### Options

- **Go to target field** specifies the field whose contents you want to select.
- **Start Position** specifies the starting position of the selection.
- **End Position** specifies the ending position of the selection.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

The starting and ending values can be typed in directly or determined via a calculation. If no target field is specified the current active field is used.

### Notes

- Field position is determined by the number of characters, including spaces, beginning with position 1, the first character in the field. The selection includes all values beginning with the Start Position and concluding with the End Position. For example, if Field1 has the value “abcdefgh”, and the script parameters specify a start position of “3” and an end position of “6”, the script step will return the selection “cdef”.
- If the start position is valid and the end position out of range, everything from the start position to the end of the field is selected. If the end position only is valid, the cursor moves to the end position, and nothing is selected. If both start and end positions are invalid, the cursor moves to the end of the field contents.
- No action is taken if the user attempts to perform a selection on a container field.
- Data selected out of visual range is scrolled into view.

## Example 1

Selects the first 5 digits of the Postal Code field.

```
Set Selection [Customers::Postal Code; Start Position: 1; End Position: 5]
```

## Example 2

Selects the number of paragraphs that the user specifies in the custom dialog.

```
Show Custom Dialog ["How many paragraphs do you want to select?";  
Products::Number of Paragraphs]  
If [Get ( LastMessageChoice ) = 1]  
    Set Selection [Products::Description; Start Position: 1; End Position:  
Position ( Products::Description ; ¶ ; 1 ; Products::Number of Paragraphs  
)]  
End If
```

## Select All

### Purpose

Selects the entire contents of the active field.

### Format

Select All

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Example 1

Selects the contents of the active field.

```
Show Custom Dialog ["Do you want to select the contents of the active
field?"]
If [Get ( LastMessageChoice ) = 1]
    Select All
End If
```

## Perform Find/Replace

### Purpose

Finds/replaces data according to the options in the Perform Find/Replace Options dialog box.

### Format

Perform Find/Replace [No dialog; "<text to be found>"; "<replacement text>"; Find Next/Replace & Find/Replace/Replace All]

### Options

- **Perform without dialog** prevents display of the Find/Replace Summary dialog box at the end of the find/replace operation. This option also prevents display of the confirmation dialog box when a **Replace All** operation is executed.

If you want the user to be able to enter find or replace criteria, use the [Open Find/Replace script step](#).

- **Perform** lets you choose which action you want the find/replace to perform:
  - **Find Next** finds an instance of the find term.
  - **Replace & Find** finds an instance of the find term, then replaces the term and searches for the next instance when the script is run again.
  - **Replace** replaces highlighted text that matches the find term with the replace term. When using the Replace action, you may need to pair the Perform Find/Replace script step with the [Select All script step](#).
  - **Replace All** finds and replaces all instances of the find term.
- **Find what** specifies the find term.
- **Replace with** specifies text to replace instances of the find term.
- **Direction** specifies the direction you want the find/replace to search through records.
- **Match case** considers the find term's case when performing the find.
- **Match whole words only** omits finds where the find term is embedded in another word.
- **All records/requests** finds within all records/requests in the found set.
- **Current records/requests** restricts the find to the current record/request.
- **All fields** finds within every field on the layout.
- **Current field** restricts the find to within the active field. You can use the [Go to Field script step](#) to select the field before the Find/Replace is performed.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

## Originated in

FileMaker Pro 6.0 or earlier

## Description

If Perform Find/Replace doesn't find data that matches the find term, it doesn't return an error.

### Example 1

Replaces text in the Reorder Level field that matches the find criteria in all records without prompting the user.

```
Go to Field [Products::Reorder Level]
Perform Find/Replace [No dialog; 1; 3; Replace All]
```

### Example 2

Goes to the next occurrence of the product name in the Description field.

```
Show Custom Dialog ["Do you want to find the current product name in the
Description field?"]
If [Get ( LastMessageChoice ) = 1]
    Go to Field [Products::Description]
    Perform Find/Replace [Products::Name; Find Next]
End If
```

### Example 3

Replaces specific terms in the current field with record data.

```
Show Custom Dialog ["Do you want to replace placeholder terms with record
data?"]
If [Get ( LastMessageChoice ) = 1]
    Perform Find/Replace [No dialog; "[NAME]"; Customers::Name; Replace
All]
    Perform Find/Replace [No dialog; "[COMPANY]"; Customers::Company;
Replace All]
    Perform Find/Replace [No dialog; "[ADDRESS]"; Customers::Address;
Replace All]
End If
```



## Fields script steps

Fields [script steps](#) operate on specific fields. With these script steps, you can:

- paste data into fields
- import information into fields and export data from fields
- evaluate a calculation and assign the result to a field

## Set Field

### Purpose

Replaces the entire contents of the specified field in the current record with a calculation result.

### Format

Set Field [*<table::field>*; *<value or formula>*]

### Options

- **Specify target field** specifies the field whose contents you want to replace. If no field is specified and a field is selected in Browse mode or Find mode, that field is used.
- *<value or formula>* is the calculation whose results will be inserted by this script step.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

- The result of the calculation must match the [field type](#). For example, you can't assign a date calculation to a container field.
- The specified field doesn't have to be on the current layout.
- If the result of the calculation doesn't match the target field type, and the validate option for the field is set to **Always**, the field will not be set and an error code is returned (which can be captured with the Get(LastError) function).
- When possible, the Set Field script step makes the record active and leaves it active until the record is exited or committed. Scripts that use a series of Set Field script steps should group these steps together if possible, so that subsequent Set Field script steps can act on the record without having to lock the record, download and upload data, index the field, and so on, after each individual Set Field script step. These functions and record level validation are performed after the record has been exited or committed.
- If the target field is a repeating field, you can specify a repetition number or generate a repetition number from a calculated expression.

## Example 1

Inserts the sum of the invoices' grand totals into the Statistics field.

```
Set Field [Customers::Statistics; Sum ( Invoices::Grand Total )]
```

## Example 2

Demonstrates when to use Set Field instead of Set Field By Name to simplify scripts.

#If the target field does not change, use the Set Field script step.

```
Set Field [Customers::Work Phone; Credit Collection::Phone Number]
```

#If you use Set Field by Name with a target field that does not change, #you must surround the target field in quotation marks so it evaluates as a literal string

#and returns the specified field name. If you do not use quotation marks, #Set Field by Name evaluates the specified field and uses the result as the target field.

#If the result does not specify a field name, nothing happens.

```
Set Field by Name ["Customers::Work Phone"; Credit Collection::Phone Number]
```

## Set Field By Name

### Purpose

Replaces the entire contents of a calculated target field in the current record with the calculated value.

### Format

Set Field by Name[*<calculated target field>*; *<value or formula>*]

### Options

- **Specify target field** is a calculation to specify the field whose contents you want to replace.
- *<value or formula>* specifies the calculation whose results will be inserted by this script step.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 10.0

### Description

The Set Field By Name script step lets you create a calculation to specify a field name, then change the value of the field either literally or based on a second calculation.

Because the target field is calculated, a single Set Field By Name step can replace multiple [Set Field script steps](#) between If conditions.

The calculated target field must return a text result.

If quotation marks are not included around the fully qualified field name, the target field name is obtained from the named field.

If no field is specified and a field is selected in Browse mode or Find mode, that field is used.

### Notes

- The specified target field doesn't have to be on the current layout.
- Set Field By Name ignores validation checking.

- When possible, the Set Field By Name script step makes the record active and leaves it active until the record is exited or committed. Scripts that use a series of Set Field By Name script steps should group these steps together if possible, so that subsequent Set Field By Name script steps can act on the record without having to lock the record, download and upload data, index the field, and so on, after each individual Set Field By Name script step. These functions and record-level validation are performed after the record has been exited or committed.

### Example 1

Identifies the target field (National Statistics or World Statistics) based on geographical location, then enters a calculated value (the sum of all Grand Totals) in the target field.

```
Set Field by Name [If ( Customers::Country = "Japan" ; Customers::National
Statistics ; Customers::World Statistics ) ; Sum ( Invoices::Grand Total ) ]
```

### Example 2

Demonstrates when to use Set Field By Name instead of Set Field to simplify scripts.

```
#With Set Field, an If statement with multiple Else If steps is needed
#to determine which field on the Customers table to update
#with information from Credit Collection::Phone Number.
```

```
If [Credit Collection::Call Location = "Work"]
    Set Field [Customers::Work Phone; Credit Collection::Phone Number]
Else If [Credit Collection::Call Location = "Home" ]
    Set Field [Customers::Home Phone; Credit Collection::Phone Number]
Else If [Credit Collection::Call Location = "Mobile" ]
    Set Field [Customers::Mobile Phone; Credit Collection::Phone Number]
End If
```

```
#A single Set Field by Name script step can perform the same task
#by using a calculation to determine the target field.
```

```
Set Field by Name [GetFieldName ( Evaluate ( Credit Collection::Call
Location & " Phone" ) ) ; Credit Collection::Phone Number]
```

## Set Next Serial Value

### Purpose

Resets the next serial value in an auto-entry serial number field.

### Format

Set Next Serial Value [*<table::field>; <value or formula>*]

### Options

- **Specify target field** specifies the serial number field on which the script step will operate. The field you specify must be defined as an auto-entry serial number field.
- **Calculated result** allows you to enter the next serial value or create a calculation to determine the next serial value.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

You can define this script step to use any calculation expression to determine the next serial value of a field that has been defined as an auto-entry serial number field. The calculation always evaluates to a text result.

For example, you might want to reset the next serial value after you do one of the following:

- import records into a FileMaker Pro database with an auto-entry serial number field
- delete multiple serialized numbers from a FileMaker Pro database

### Notes

- This script step affects the definition of the field you specify instead of the actual contents of the field that you specify.
- This script step can operate on multiple files. If you specify a field in another file, then FileMaker Pro attempts to update the serial number for the specified field in the other file. To specify a field in another file, define a relationship to that file and use **Specify target field** to select a field from that file.

### Example 1

Calculates the number of the next available invoice ID, using the Max function to return the highest value in the Invoice ID field. If an invoice ID contains non-numeric data, then the calculation would need to be more sophisticated to maintain the numeric and non-numeric data.

```
Go to Record/Request/Page [Last]
Set Next Serial Value [Invoices::Invoice ID; Max ( Invoices::Invoice ID )
+ 1]
```

### Example 2

Sets the next serial number value in the Invoice ID field options after importing records. Useful if **Perform auto-enter options while importing** is not selected in order to preserve dates and other auto-entered values.

```
Import Records [Add; Mac Roman]
Set Next Serial Value [Invoices::Invoice ID; Get ( TotalRecordCount ) + 1]
```

### Example 3

Prompts the user to input the next serial value.

```
Show Custom Dialog ["Set the next serial number value"; Invoices::Next
Serial Value]
If [Get ( LastMessageChoice ) = 1]
    Set Next Serial Value [Invoices::Invoice ID; Invoices::Next Serial
Value]
End If
```

## Insert Text

### Purpose

Pastes a text value into a field in the current record.

### Format

```
Insert Text [Select; <table::field>; "<text>"]
```

### Options

- **Select entire contents** replaces the contents of a field. If you do not select this option, Insert Text inserts the specified value at the end of the field's data.
- **Go to target field** specifies the field to receive the pasted information. If no field is selected, the Insert Text command will place the specified text after the insertion point. If no field is active at the time the command executes, it has no effect. Also, if the selected field is not present on the current Layout, the Insert Text command has no effect.
- *<text>* is the exact value you want to paste.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step pastes text that is specified in the script, instead of text provided by the user.

### Notes

- This script step is intended to paste text into text [field types](#). To insert other types of data into other types of fields, use either the [Insert Calculated Result script step](#) or the [Set Field script step](#).
- If the specified field does not exist on the layout where the script is being performed, Insert Text returns an error code which can be captured with the `Get(LastError)` function.

### Example 1

Inserts "Draft" into the Status field.

```
Insert Text [Select; Invoices::Status; "Draft"]
```



## Example 2

Inserts either "Paid" or "Unpaid" depending on the value of the Payment Date field.

```
If [ IsEmpty ( Invoices::Payment Date ) ]
    Insert Text [Select; Invoices::Status; "Unpaid"]
Else
    Insert Text [Select; Invoices::Status; "Paid"]
End If
```

## Example 3

Inserts "Draft" into the Status field or displays a dialog if Status is not on the current layout.

```
Insert Text [Select; Invoices::Status; "Draft"]
If [Get ( LastError ) = 102]
    Show Custom Dialog ["Status field is missing on current layout"]
End If
```

## Insert Calculated Result

### Purpose

Pastes the result of a calculation into the current field in the current record.

### Format

Insert Calculated Result [Select; <table::field>; <value or formula>]

### Options

- **Select entire contents** replaces the contents of a field. If you don't select this option, Insert Calculated Result replaces only the selected portion of the current field, or inserts the result at the insertion point. The default insertion point is at the end of the field's data.
- **Go to target field** specifies the field to paste the calculated results into. The target field must be present on the layout to paste successfully. If no field is active when the script is performed, the step has no effect.
- <value or formula> is the calculation whose results will be inserted by this script step.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

If the specified field does not exist on the layout where the script is being performed, Insert Calculated Result returns an error code which can be captured with the Get(LastError) function.

### Example 1

Inserts the current date if the invoice prints successfully.

```
Set Error Capture [On]
Print [ ]
Insert Calculated Result [Select; Invoices::Print Status; If ( Get (
LastError ) = 0 ; "Printed on " & Get ( CurrentDate ) ; "Not Printed" ) ]
```

## Insert From Device

### Purpose

In FileMaker Go, enters content from a device into a field.

### Format

Insert from Device [*<table::field>*; Type: Music Library]

Insert from Device [*<table::field>*; Type: Photo Library]

Insert from Device [*<table::field>*; Type: Camera; Camera: Front/Back; Resolution: Full/Small/Medium/Large]

Insert from Device [*<table::field>*; Type: Video Camera; Camera: Front/Back; Resolution: Full/Small/Medium/Large; Max Duration: *<value or formula>*; Start immediately]

Insert from Device [*<table::field>*; Type: Microphone; Max Duration: *<value or formula>*; Start immediately]

Insert from Device [*<table::field>*; Type: Bar Code; Camera: Front/Back; Resolution: Full/Small/Medium/Large; *<table::field>*]

Insert from Device [*<table::field>*; Type: Signature; Title: *<value or formula>*; Message: *<value or formula>*; Prompt: *<value or formula>*]

### Options

- **Specify target field** specifies a container field. For bar codes, you can also specify a text field. If no field is specified, the currently active field is used if it is a container field or text field.
- **Insert from** specifies the source type.
  - For **Camera**, choose **Back** or **Front**.
  - For **Resolution**, choose **Full**, **Large**, **Medium**, or **Small**.
  - Select **Maximum duration** to specify the number of seconds a video camera or microphone records. Click **Specify** to define a duration from a calculation.
  - Select **Start immediately** to have a video camera or microphone start recording immediately.
  - For **Scan from Camera**, choose **Back** or **Front**.
  - For **Scan from Field**, choose a field.
  - In the list of **Bar code types**, select the types of bar codes you want FileMaker Go to scan. By default, all types are selected.
  - For **Title**, enter a title or a calculated value for the signature capture screen.
  - For **Message**, enter an informational message or a calculated value for the signature capture screen.
  - For **Prompt**, enter a prompt or a calculated value to indicate the signature line. This prompt replaces the default "Sign Here."

## Compatibility

Where the script step runs	Supported
FileMaker Pro	No
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

## Originated in

FileMaker Pro 13.0

## Description

This script step enters content into a container field from a music library, photo library, camera, video camera, microphone, or signature; or enters content into a container field or text field from a bar code source.

- FileMaker Go does not support all types of bar codes.
- If the target field is a repeating field, you can specify a repetition number or generate a repetition number from a calculated expression.
- If the target field is a text field, only the text value of the bar code is inserted into the field.
- If the target field is a container field, an image of the bar code is inserted into the field. The text value of the bar code is also stored in the field. You can retrieve the text value of the bar code with the `GetAsText` function. You can retrieve the bar code type with the `GetContainerAttribute` function.

## Notes

- In the script editing pane, the selected bar code types are not displayed. To see all settings, print the script or use the Database Design Report (FileMaker Pro Advanced).
- In the Bar Code Options dialog box, select:
  - **EAN-13** to scan ISBN-10 or ISBN-13 bar codes. Also select **ISBN-10 (from EAN-13)** if you need to convert a scanned ISBN-13 bar code to the ISBN-10 type.
  - **EAN-13** as well as **UPC-A** or **UPC-E** to scan UPC-A or UPC-E bar codes.
- For more information on scanning bar codes, see FILEMAKER GO DEVELOPMENT GUIDE.

## Example 1

Inserts a photo taken by the iOS device's back camera at Full resolution into the File Container field.

```
Insert from Device [Products::File Container; Type: Camera; Camera: Back; Resolution: Full]
```

## Example 2

Inserts an image of a bar code taken by the iOS device's back camera at Small resolution into the container field named UPC. To retrieve the text value of the bar code, use `GetAsText (UPC)`.

```
Insert from Device [Products::UPC; Type: Barcode; Camera: Back;
Resolution: Small]
```

## Example 3

In the container field named Signature, displays a title, message, and prompt in the signature capture screen.

```
Insert from Device [Invoice::Signature; Type: Signature; Title:
"Invoice"; Message: "Thank you for your order"; Prompt: "Signature
required"]
```

## Insert From Index

### Purpose

Pastes a value from the index into a field.

### Format

Insert from Index [Select; <table::field>]

### Options

- **Select entire contents** replaces the contents of a field. If you do not select this option, Insert From Index inserts the result at the cursor position or at the end of the field's data.
- **Go to target field** allows you to specify the field to paste the index value into. The field you specify may be of any type.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step displays the [index](#) for the active field. You can use Insert From Index in Browse or Find modes.

FileMaker Pro displays the View Index dialog box so the user can select an entry. This method promotes consistent data entry and correct spelling. For this script step, you can specify a field and select the entire contents of the field.

FileMaker Pro uses what was last selected for the **Show individual words** option in the View Index dialog box (it is not remembered in the script).

### Notes

- If the specified field does not exist on the layout where the script is being performed, Insert From Index returns an error code which can be captured with the Get(LastError) function.
- If you have turned indexing off for a field and deselected the option to **Automatically create indexes as needed**, the index will not display and an error code is returned. For more information on field indexing see Defining field indexing options.

## Example 1

Displays the index for a field in Find mode so the user can select a preexisting value.

```
Enter Find Mode [ ]  
Insert from Index [Customers::Company]  
Perform Find [ ]
```

## Insert From Last Visited

### Purpose

Pastes data from the last active record into the specified field in the current record or find request.

### Format

```
Insert from Last Visited [Select; <table::field>]
```

### Options

- **Select entire contents** replaces the contents of a field. If you do not select this option, Insert From Last Visited inserts the result at the insertion point or at the end of the field's existing data.
- **Go to target field** specifies the field to paste into.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Use this script step to ensure consistency and automate data entry. The active record is the last record where FileMaker Pro performed some activity, such as pasting text or moving into a field with the [Go to Field script step](#).

**Note** If the specified field does not exist on the layout where the script is being performed, Insert From Last Visited returns an error code which can be captured with the Get(LastError) function.

### Example 1

Creates a new record and inserts the customer name from the last record that was viewed.

```
New Record/Request
Insert from Last Visited [Invoices::Customer Name]
```



## Example 2

Inserts the value from the Customer Name field of the last visited record into a [find request](#), pauses for the user to make modifications, then performs the find.

```
Enter Find Mode [ ]  
Insert from Last Visited [Invoices::Customer Name]  
Pause/Resume Script [Indefinitely]  
Perform Find [ ]
```

## Insert From URL

### Purpose

Enters the content from a URL into a field.

### Format

```
Insert from URL [Verify SSL Certificates; Select; No dialog;
<table::field>; Resource URL]
```

### Options

- **Verify SSL Certificates** validates the SSL certificate of the server specified in the URL. If the certificate is invalid, you can choose to continue or skip this script step. If the certificate is invalid and the [Set Error Capture script step](#) is set to **On**, Insert From URL behaves as if the server is unavailable.
- **Select entire contents** replaces the contents of a field. If you do not select this option, Insert From URL inserts the content from the URL at the insertion point or at the end of the field's data.
- **Perform without dialog** prevents the "Insert from URL" Options dialog box from displaying when the script step executes.
- **Go to target field** specifies the field to insert the URL content into.
- **Specify URL** allows you to type the URL or to create your URL from a calculation.
- **Automatically encode URL** replaces special characters with the corresponding encoded values required for URLs. For example, a space character is replaced with %20. When this option is deselected, the URL remains as it is entered.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 12.0

### Description

Insert From URL supports http, https, httpost, httpsost, ftp, ftps, and file protocols. FileMaker Pro downloads the resource that is specified by the URL to the target field.

For a list of picture and audio/video formats supported in container fields, see Using data in container fields.

---

**Important** For better performance in FileMaker WebDirect, be sure that **Select entire contents** is selected.

---

## Notes

- Insert From URL supports UTF-8 only.
- In FileMaker WebDirect:
  - If **Perform without dialog** is deselected, this script step runs as if **Automatically encode URL** is selected.
  - If **Select entire contents** is deselected, and Insert From URL inserts content into a text field, the contents from the URL are appended to the text field. Multiple fetches can result in unpredictable results and slower performance.
- httppost and httpspost are custom schemes defined by FileMaker Pro that enable you to send HTTP POST data. See About importing data using an HTTP request.

## Example 1

Accesses a website and inserts a PDF into the Sales Report container field.

```
Insert from URL [No dialog; Customers::Sales Report; "http://www.filemaker.com/sales_report.pdf"]
```

## Example 2

Inserts a map showing the customer's address in the Address Map container field.

```
Insert from URL [No dialog; Customers::Address Map; "http://maps.google.com/maps/api/staticmap?center=" & Customers::Address & "&zoom=14&markers=" & Customers::Address & "&size=256x256&sensor=false"]
```

## Example 3

Inserts the HTML code for http://www.apple.com.

```
Insert from URL [No dialog; Customers::HTML Website Code; "http://www.apple.com"]
```

## Insert Current Date

### Purpose

Pastes the current system date into the specified field.

### Format

Insert Current Date [Select; <table::field>]

### Options

- **Select entire contents** replaces the contents of a field with the current date. If you do not select this option, Insert Current Date adds the value of the current date to the end of the field's existing data.
- **Go to target field** specifies the field to paste the date into.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

- To perform a calculation with the current date, make sure the receiving field is defined as a date field.
- If the specified field does not exist on the layout where the script is being performed, Insert Current Date returns an error code which can be captured with the Get(LastError) function.

### Example 1

Goes to the Email History layout, inserts the current date in the Last Sent field, then goes to the original layout.

```
Go to Layout ["Email History"]
Insert Current Date [Select; Emails::Last Sent]
Go to Layout [original layout]
```

## Insert Current Time

### Purpose

Pastes the current system time into the specified field.

### Format

```
Insert Current Time [Select; <table::field>]
```

### Options

- **Select entire contents** replaces the contents of a field with the current time. If you do not select this option, Insert Current Time adds the value of the current time to the end of the field's existing data.
- **Go to target field** specifies the field to paste into.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

- To perform a calculation with the current time, make sure the receiving field is defined as a Time field.
- If the specified field does not exist on the layout where the script is being performed, Insert Current Time returns an error code which can be captured with the Get(LastError) function.

### Example 1

Goes to the Email History layout, inserts the current time in the Last Sent field, then goes to the original layout.

```
Go to Layout ["Email History"]
Insert Current Time [Select; Emails::Last Sent]
Go to Layout [original layout]
```

## Insert Current User Name

### Purpose

Pastes the current user name into the specified field in the current record.

### Format

Insert Current User Name [Select; <table::field>]

### Options

- **Select entire contents** replaces the contents of a field with the current user name. If you do not select this option, Insert Current User Name adds the value of the current user name to the end of the field's existing data.
- **Go to target field** specifies the field to paste into.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

- If the specified field does not exist on the layout where the script is being performed, Insert Current User Name returns an error code which can be captured with the Get(LastError) function.
- User name is the FileMaker Pro user, an editable field displayed on the **General** tab of the Preferences dialog box. To track user access to a database with more security, use the Get(AccountName) function to return the current user's [account](#) name.
- In FileMaker WebDirect, Insert Current User Name pastes the current user's account name, not the current user name.

### Example 1

Goes to the Email History layout, inserts the current user name in the Sent by field, then goes to the original layout.

```
Go to Layout ["Email History"]
Insert Current User Name [Select; Emails::Sent by]
Go to Layout [original layout]
```

## Insert Picture

### Purpose

Imports a graphic from another file into the current container field.

### Format

```
Insert Picture [Reference;"<filename>"]
```

### Options

- **Store only as a reference** instructs FileMaker Pro to store only a link to the graphic file instead of the entire file. This option may reduce the size of your FileMaker Pro file, but if you move or delete the graphic, FileMaker Pro will be unable to display it.
- **Specify source file** identifies the file that contains the graphic. The file path must begin with `image`, `imagemac`, or `imagewin`. See [Creating file paths](#).

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	Partial
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

You must specify a field, click in a field, or use the [Go to Field script step](#) before performing this script step.

When Insert Picture is performed, unless a file is specified with the **Specify source file** option, FileMaker Pro displays a dialog box where the user can select and preview the file to be imported.

**Note** FileMaker WebDirect does not support the **Store only as a reference** or **Specify source file** options.

### Notes

- If there is no active container field on the layout where the script is being performed, Insert Picture returns an error code that can be captured with the `Get(LastError)` function.
- For information on supported picture formats, see [Using data in container fields](#).

## Example 1

Goes to the Picture field and inserts a picture.

```
Go to Field [Products::Picture]  
Insert Picture ["Mobile Phone.png"]
```



## Insert Audio/Video

### Purpose

Imports an audio or video file, or a file reference, into the current interactive container.

### Format

```
Insert Audio/Video [Reference;"<filename>"]
```

### Options

- **Store only as reference** instructs FileMaker Pro to store only a link to an audio or video file in the container field instead of the actual file. This option may reduce the size of your FileMaker Pro file, but if you move or delete the file being referenced, FileMaker Pro won't be able to display it.
- **Specify source file** specifies the audio or video file you intend to insert in the [interactive container](#). The file path must begin with `movie`, `moviemac`, or `moviewin`. See [Creating file paths](#).

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	Partial
Runtime solution	Yes

### Originated in

FileMaker Pro 12.0

### Description

You must specify a field, click in a field, or use the [Go to Field script step](#) before performing this script step.

When Insert Audio/Video is performed, unless a file is specified with the **Specify source file** option, FileMaker Pro displays a dialog box where the user can select and preview the file to be imported.

**Note** FileMaker WebDirect does not support the **Store only as reference** or **Specify source file** options.

### Notes

- If there is no active container field on the layout where the script is being performed, Insert Audio/Video returns an error code that can be captured with the `Get(LastError)` function.
- This script step works only for interactive containers. For more information, see [Specifying formats for container fields](#).
- For a list of supported media types, see [Using data in container fields](#).

## Example 1

Goes to the Media field and inserts an audio file.

```
Go to Field [Customers::Media]  
Insert Audio/Video ["Music.mp3"]
```

## Example 2

Inserts the media file specified in the Media Name field into the active container field by reference.

```
Set Variable [$MEDIA_PATH; Value: Get ( DocumentsPath ) & Products::Media  
Name]  
Insert Audio/Video [Reference; "$MEDIA_PATH"]
```

## Insert PDF

### Purpose

Imports a PDF file or file reference into the current interactive container.

### Format

Insert PDF [Reference;"<filename>"]

### Options

- **Store only as reference** instructs FileMaker Pro to store a link to a PDF file in the container field instead of the actual file. This option may reduce the size of your FileMaker Pro file, but if you move or delete the file being referenced, FileMaker Pro won't be able to display it.
- **Specify source file** allows you to specify the PDF file you intend to insert in the [interactive container](#). The file path must begin with `image`, `imagemac`, or `imagewin`. See [Creating file paths](#).

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	Partial
Runtime solution	Yes

### Originated in

FileMaker Pro 12.0

### Description

You must specify a field, click in a field, or use the [Go to Field script step](#) before performing this script step.

When Insert PDF is performed, unless a file is specified with the **Specify source file** option, FileMaker Pro displays a dialog box where the user can select and preview the file to be imported.

### Notes

- FileMaker WebDirect does not support the **Store only as reference** or **Specify source file** options.
- If there is no active container field on the layout where the script is being performed, Insert PDF returns an error code that can be captured with the `Get(LastError)` function.
- This script step works only with interactive containers. For more information, see [Specifying formats for container fields](#).

## Example 1

Goes to the File field and inserts a PDF.

```
Go to Field [Products::File]
```

```
Insert PDF ["Product Description.pdf"]
```

## Insert File

### Purpose

Imports a file or file reference into the current container field; configures the Insert File dialog box.

### Format

```
Insert File [<dialog options>;<table::field>;"<filename>"]
```

### Options

- **Dialog options** allows you to create a custom Insert File dialog box, filter file types, and choose storage, display, and compression options for files that are inserted into a container field. See Insert File Options dialog box.
- **Go to target field** specifies the container field to insert the file into.
- **Specify source file** specifies the file to be inserted. For information on creating file paths in FileMaker Pro, see Creating file paths.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	Partial
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

You must specify a target field, click in a field, or use the [Go to Field script step](#) before performing this script step. If you do not specify a file to insert, FileMaker Pro displays a dialog box where the user can select a file.

### Notes

- If there is no active container field on the layout where the script is being performed, Insert File returns an error code that can be captured with the Get(LastError) function.
- FileMaker WebDirect does not support the **Dialog options** or **Specify source file** options.

### Example 1

Goes to the File field and inserts a document.

```
Go to Field [Products::File]
Insert File ["Instruction Manual.doc"]
```

## Example 2

Opens a dialog box with custom file format filters for the user to select a file, attempts to compress the selected file, then inserts the file into the active container field.

```
Insert File [Filters; Insert; Compress when possible]
```

## Example 3

Inserts the file specified in the File Name field into the File container field, and attempts to display the contents of the file.

```
Set Variable [$FILE_PATH; Value: Get ( DocumentsPath ) & Products::File  
Name]  
Insert File [Insert; Display content; Never compress; Products::File ;  
$FILE_PATH]
```

## Replace Field Contents

### Purpose

Replaces the value in a field in every record in the found set with a different value.

### Format

Replace Field Contents [No Dialog; <table::field>;  
Current contents/Serial numbers/Calculation results]

### Options

- **Perform without dialog** prevents display of the Replace Field Contents dialog box when the script step executes.
- **Specify target field** specifies the target field for the replace operation.
- **Replace with "current contents"** uses the current value in the specified field as the replacement value to place in that field in every other record in the current [found set](#).
- **Replace with serial numbers** reserializes the field in every record in the current found set.
  - **Entry options** uses the next available value in Entry Options as the first record number, incrementing with whatever value is in Entry Options.
  - **Custom Values** lets you enter a value to be used as a starting point for the serialization, as well as a value by which to increment each serialized field in the current found set.
  - **Update serial number in Entry Options?** resets the serial number value in Entry Options so that the next serial number that is automatically entered will follow the records you have reserialized with this script step. If this option is not used, the serial value in Entry Options is not changed, and may not be in sequence with the newly reserialized records.

If the field to be replaced was set up for auto-entry of a serial number and **Prohibit modification of value** is not selected, FileMaker Pro will still put sequential numbers in the selected field, but will do so starting with the next number to be automatically entered.

- **Replace with calculated result** displays the Specify Calculation dialog box, where you can enter a calculation to be used as the replacement value.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Yes
Custom Web Publishing	Partial
FileMaker WebDirect	Partial
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

## Description

This script step uses the value in a specified field in the current record or uses a calculation to replace the value in that field in every record in the current found set.

---

**Important** Replace Field Contents modifies all records in the found set. You cannot undo a Replace Field Contents script step.

---

- This script step can also be used to reserialize a field in every record in the current found set.
- When you use the Replace Field Contents script step, the data must be committed first before the operation is performed, or you may get unexpected results. See [Committing data in records](#).
- FileMaker WebDirect, FileMaker Server scheduled scripts, and Custom Web Publishing run this script step as if the **Perform without dialog** option is selected.

## Example 1

Assigns serial numbers to all invoices in the found set.

```
Sort Records [Restore]
Go to Record/Request/Page [First]
Replace Field Contents [No dialog; Invoices::Invoice ID; Serial numbers]
```

## Example 2

Replaces the contents of the Customer ID field in all records in the found set with the contents of the current record's Customer ID field.

```
Perform Find [Restore]
Replace Field Contents [No dialog; Invoices::Customer ID; Current
Contents]
```



## Relookup Field Contents

### Purpose

Copies new values from the lookup source field into the current found set.

### Format

Relookup Field Contents [No dialog; <table::field>]

### Options

- **Perform without dialog** prevents a dialog box from displaying when the script step executes that lets the user confirm field information.
- **Go to target field** specifies the field that is the target of the relookup operation. FileMaker Pro moves the cursor to the field you specify. This must be the [match field](#) for the relationship upon which the [lookup](#) is based, not the [lookup source field](#) or [lookup target field](#). If no field is selected, Relookup Field Contents returns an error code that can be captured with the Get(LastError) function.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Yes
Custom Web Publishing	Partial
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

- The target field specified for the Relookup Field Contents step must be an editable field.
- Relookups are only performed on the [found set](#) of records in the active table.
- Calculation fields cannot be used for the Relookup Field Contents command. If you use the Relookup Field Contents command, and you're using a calculation field as the matching value, you must specify one of the input fields for the calculation as the field parameter for the Relookup Field Contents.
- When you use the Relookup Field Contents script step, the data must be committed first before the operation is performed, or you may get unexpected results. See [Committing data in records](#).

## Example 1

Finds records that have matching values in the Customer ID field, then updates all lookups in the found set based on the relationship that uses Customer ID as a match field.

Go to Layout ["Invoice Details"]

Find Matching Records [Replace; Invoices::Customer ID]

Relookup Field Contents [No dialog; Invoices::Customer ID]

## Export Field Contents

### Purpose

Exports the contents of a single field in the active record to a new file.

### Format

```
Export Field Contents [<table::field>; "<filename>"; Automatically open;
Create email]
```

### Options

- **Specify target field** specifies the field to be exported. If no field is specified, FileMaker Pro will export the contents of the current field in the active table.
- **Specify output file** specifies the name and location of the file to which the field contents will be exported. For more information, see [Creating file paths](#). If no file is specified, the user is asked to choose a filename and location when the script step is performed. You can choose to **Automatically open file** or **Create email with file as attachment** after saving.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	Partial
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

If the contents of the exported field is text, then FileMaker creates a UTF-16 format text file.

### Notes

- FileMaker WebDirect does not support the **Specify output file** option. FileMaker WebDirect exports field contents to the web browser's default download location.
- FileMaker WebDirect does not support this script step in mobile browsers.

### Example 1

Opens a dialog box to set the export path and filename, then exports the image.

```
Export Field Contents [Products::Picture; "Mobile Phone.png"]
```

## Example 2

Exports files from the Container field in all the records in the found set to a set file path.

```
Set Variable [$PATH; Value: Get ( DocumentsPath ) & Products::Container]
Go to Record/Request/Page [First]
Loop
    Export Field Contents [Products::Container; "$PATH"]
    Go to Record/Request/Page [Next; Exit after last]
End Loop
```

## Records script steps

Records [script steps](#) affect specific records and [find requests](#). Use these script steps to:

- add, delete, and copy records or find requests
- change field contents in all records in the [found set](#)
- [commit](#) and revert records
- import and export records
- save records to various formats

## New Record/Request

### Purpose

Creates a new, blank record or a new find request.

### Format

New Record/Request

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

In Browse mode, this script step creates a new, blank record. In Find mode, it creates a new find request.

### Example 1

Goes to the Invoice Details layout, creates a record, and goes to the Summary field.

```
Go to Layout ["Invoice Details"]
New Record/Request
Go to Field [Invoices::Summary]
```

## Duplicate Record/Request

### Purpose

Duplicates the current record or the current find request.

### Format

Duplicate Record/Request

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

In Browse mode, this script step makes a duplicate of the current record. In Find mode, it duplicates the current find request.

If the record has a field set up for automatic entry of values, this script step does not duplicate the value in the field of the current record. In that case, FileMaker Pro generates and enters a new value for the duplicated record.

To use the Duplicate Record/Request script step with [portal](#) rows, first use the [Go to Portal Row script step](#), and then use the Duplicate Record/Request step. Using the Duplicate Record/Request step when a portal row is selected will duplicate the selected row in the related table. This option is only available when the option to allow creation of [related records](#) has been enabled for the relationship.

### Example 1

Performs a find, goes to the last record, and duplicates the record.

```
Perform Find [Restore]
Go to Record/Request/Page [Last]
Duplicate Record/Request
```

## Delete Record/Request

### Purpose

Deletes the current record or find request.

### Format

Delete Record/Request [No dialog]

### Options

**Perform without dialog** prevents the deletion confirmation dialog box from displaying when the script step executes.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Yes
Custom Web Publishing	Partial
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

In Browse mode, this script step deletes the current record. In Find mode, it deletes the current find request.

To delete	Do this
A master record	Make sure that the record you want to delete is active (use navigation script steps), and then use Delete Record/Request. If the current layout contains a <a href="#">portal</a> , click anywhere on the record outside of the portal to make sure that no <a href="#">related record</a> is selected, then use Delete Record/Request.
A related record	Perform Delete Record/Request in a portal row, or use the <a href="#">Delete Portal Row script step</a> .
A find request	Make sure that the <a href="#">find request</a> you want to delete is active (use navigation script steps), and then use Delete Record/Request.

---

**Important** You cannot undo a Delete Record/Request script step.

---



### Example 1

Goes to a related record and asks if the user wants to delete it.

```
Go to Related Record [From table: "Products"; Using layout: "Product  
Details"]  
Delete Record/Request [ ]
```

### Example 2

Displays a custom dialog to ask if the user wants to delete the current product.

```
Show Custom Dialog ["Do you want to delete " & Products::Name & "?"]  
If [Get ( LastMessageChoice ) = 1]  
    Delete Record/Request [No dialog]  
End If
```

## Delete Portal Row

### Purpose

Deletes the selected portal row (which deletes data in a related record).

### Format

Delete Portal Row [No dialog]

### Options

**Perform without dialog** prevents a message box from displaying when the script step executes that asks the user to confirm the deletion of the [portal](#) row.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Yes
Custom Web Publishing	Partial
FileMaker WebDirect	Partial
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Use the [Go to Portal Row script step](#) to control which row is selected. (If no portal row is selected, nothing happens when this script step executes.)

**Note** After you use a Delete Portal Row script step in FileMaker WebDirect, click anywhere on the layout or use a [Commit Records/Requests script step](#) to commit the deletion.

---

**Important** You cannot undo a Delete Portal Row script step.

---

### Example 1

Asks if the user wants to delete the portal row if a product is discontinued.

```
If [Products::Availability = "Discontinued"]
    Delete Portal Row [ ]
End If
```

## Example 2

Asks if the user wants to delete the product in the current portal row.

```
Show Custom Dialog ["Do you want to delete " & Products::Name & "?"]  
If [Get ( LastMessageChoice ) = 1]  
    Delete Portal Row [No dialog]  
End If
```

## Delete All Records

### Purpose

Deletes all the records in the current found set.

### Format

Delete All Records [No dialog]

### Options

**Perform without dialog** prevents a message box from displaying when the script step executes that asks the user to confirm the deletion of records.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Yes
Custom Web Publishing	Partial
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

To delete all records in the current table, use the [Show All Records script step](#), then use Delete All Records.

---

**Important** You cannot undo a Delete All Records script step.

---

### Example 1

Asks if the user wants to delete all records in the current table.

```
Show All Records
Delete All Records [ ]
```

### Example 2

Asks if the user wants to delete all records in the current [found set](#).

```
Show Custom Dialog ["Do you want to delete all " & Get ( FoundCount ) & "
records found?"]
If [Get ( LastMessageChoice ) = 1]
    Delete All Records [No dialog]
End If
```

## Open Record/Request

### Purpose

Makes an existing record or find request available for editing if the current user has record-editing privileges.

### Format

Open Record/Request

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step makes an existing record available (in Browse mode) or an existing find request available (in Find mode) for editing if the current user has record-editing privileges. When performed on a record, this script step verifies that the user has sufficient [access privileges](#) to edit the record. If the user has the proper privilege set, FileMaker Pro attempts to prevent others from simultaneously editing or deleting the record. Once locked, the record is considered “opened” and may be edited.

If an error occurs (for example, if the current user has insufficient access privileges, the record is currently locked by another user, or the record is open in another window), FileMaker Pro generates an error message, which may be captured using the [Set Error Capture script step](#) and the Get(LastError) function. (Opening a [find request](#) will not return an error, because requests can't be locked by other users.)

---

**Important** Because any attempt to modify a field or a record will also attempt to open the record for editing, in most cases you will not need to use the Open Record/Request script step to open a record explicitly. But when using the [Go to Record/Request/Page script step](#) to enter a field or record, use the Open Record/Request script step first to obtain a write lock.

---

## Example 1

Prints the current invoice if the user has the privileges to edit it.

```
Go to Layout ["Print Invoices"]
Open Record/Request
If [Get ( LastError ) = 0]
    Print [ ]
End If
Go to Layout [original layout]
```

## Example 2

Checks if the current user account has the privilege to edit records. If not, asks if the user wants to log in to a different account.

**Note** This script does not run properly if it is set to run with full access privileges because this allows any account to open the record.

```
Set Error Capture [On]
Go to Layout ["Invoice Details"]
Open Record/Request
If [Get ( LastError ) = 200]
    Show Custom Dialog ["You cannot edit this record. Do you want to re-
login?"]
    If [Get ( LastMessageChoice ) = 1]
        Re-Login [ ]
    Else
        Go to Layout [original layout]
    End If
End If
```

## Revert Record/Request

### Purpose

Returns the current record or find request to the way it was before editing began.

### Format

Revert Record/Request [No dialog]

### Options

**Perform without dialog** prevents a dialog box from displaying when the script step executes that asks the user to confirm the revert action.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Yes
Custom Web Publishing	Partial
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Example 1

Displays a dialog if the current record has been modified but not committed. Gives the user the option of reverting the record.

```
If [Get ( RecordOpenState ) = 2]
    Show Custom Dialog ["This record has been modified since it was last
entered."]
    #Button 1 is Commit. Button 2 is Revert.
    If [Get ( LastMessageChoice ) = 2]
        Revert Record/Request [No dialog]
    End If
End If
```

## Commit Records/Requests

### Purpose

Commits a record or find request.

### Format

Commit Records/Requests [Skip data entry validation; No dialog; Force Commit]

### Options

- **Skip data entry validation** overrides any data entry validation options set for fields and [commits](#) the record anyway. This option only skips validation for fields set with the **Only during data entry** validation option in the Options for Field dialog box; fields set to **Always** validate will still validate, even if the **Skip data entry validation** option is selected. For more information on field validation, see Defining field validation.
- **Perform without dialog** prevents a dialog box from displaying when the script step executes that asks the user to confirm the commit action.  
**Note** **Perform without dialog** only applies when **Save record changes automatically** is cleared in the Layout preferences.
- **Override ESS locking conflicts** allows clients of ODBC data sources to force-commit changes when optimistic locking otherwise prevents the commit action. ODBC data sources are also referred to as external SQL sources (ESS).

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Yes
Custom Web Publishing	Partial
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step exits the current record or [find request](#), updating field data and making no field active.



## Example 1

Goes to the Invoice Details layout, inserts the current date into the Date field, and commits the record.

```
Go to Layout ["Invoice Details"]  
Insert Calculated Result [Invoices::Date; Get ( CurrentDate )]  
Commit Records/Requests [No dialog]
```

## Copy Record/Request

### Purpose

Copies the values of a record or find request to the Clipboard.

### Format

Copy Record/Request

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Text fields are copied in tab-delimited format, without styles, in the order they appear in the record layout. Text in container fields is also copied. (This script step is equivalent to choosing **Copy** from the **Edit** menu when there is no active field.)

### Notes

- Contents that you cut or copy to the Clipboard are accessible to other applications.
- When using the Copy Record/Request step with [repeating fields](#), FileMaker Pro inserts the group separator character between each repetition. You can use a text editor to replace these characters with another delimiter such as a tab or space.
- Any fields located in [popovers](#) are ignored when you copy records.

### Example 1

Copies the contents of the current record and displays a custom dialog.

Copy Record/Request

```
Show Custom Dialog ["You can now paste the current record in your spreadsheet software."]
```

## Copy All Records/Requests

### Purpose

Copies the values of all records or the search criteria in all find requests to the Clipboard.

### Format

Copy All Records/Requests

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

In Browse mode, this script step copies the values of all records to the Clipboard. In Find mode, it copies all find requests to the Clipboard.

Text fields are copied in tab-delimited format, without styles, in the order they appear in the record layout. Text in container fields is also copied. (This script step is equivalent to choosing **Copy** from the **Edit** menu while holding down the Shift key (Windows) or Option key (OS X) when there is no active field.)

### Notes

- Contents that you cut or copy to the Clipboard are accessible to other applications.
- When using the Copy All Records/Requests step with [repeating fields](#), FileMaker Pro inserts the group separator character between each repetition. You can use a text editor to replace these characters with another delimiter such as a tab or space.
- Any fields located in [popovers](#) are ignored when you copy records.

## Example 1

Finds all records with the same Customer ID as the current record, sorts, copies the contents of all the records in the found set, and displays a dialog.

```
Find Matching Records [Replace; Invoices::Customer ID]
Sort Records [Restore; No dialog]
Copy All Records/Requests
Show Custom Dialog ["You can now paste data from the current " & Get (
FoundCount ) & " invoices."]
```

## Import Records

### Purpose

Imports records from a specified file or data source.

### Format

Import Records [No dialog; "<source or filename>"; Add/Update existing/Update matching; <platform and character set>]

### Options

- **Perform without dialog** prevents display of import-related dialog boxes when the script step executes. However, if a data source file has not been specified, the Open File dialog box will be displayed when a script is run from FileMaker Pro.
- **Specify data source** specifies the file or source of the data to be imported. Depending on the file or source you choose, a dialog box may appear for specifying the following additional options:

When you choose this file or source	Do this
File	In the Specify File dialog box, choose the file you want to import, or type file paths directly into the list. Specify one path per line. FileMaker Pro will use the first path it locates as the file to import. See <a href="#">Creating file paths</a> .
Folder	In the Folder of Files Import Options dialog box, choose the folder of image or text files that you want to import, or type the folder paths directly into the list. Specify one path per line. FileMaker Pro will use the first path it locates as the folder to import. For more information, see <a href="#">Importing a folder of files all at once</a> and <a href="#">Creating file paths</a> . This option is not supported from scripts running on FileMaker Server.
XML Data	In the Specify XML and XSL Options dialog box, choose the source of the XML data that you want to import, and choose an XSLT style sheet if you want to apply one prior to import. The XML and XSLT source may be a file or the result of an HTTP request, or a calculation that generates a file path or an HTTP request. For more information, see <a href="#">Importing XML data</a> .
ODBC Data	Specify the data source name and location, the user ID and password (if any), and the SQL query to be executed. You can enter a query directly or specify a calculation to generate the query. For more information, see <a href="#">Automating ODBC import using the Import Records script step</a> .  SQL statements are limited to a maximum length of 256 K characters (512 KB).  <b>Note</b> If you use the Import Records script step to import ODBC data that contains Unicode strings, your ODBC driver must support Unicode. Otherwise, the results may be inconsistent.

- **Specify import order** tells FileMaker Pro to use a predefined import order. The last import order used in the file appears as the default and can be edited. This option also lets you choose whether to keep repeating field data together or to split repeating fields into separate records, as well as whether to add new records, replace data in the current [found set](#), or import data as a new table.

**Note** When import source fields and target fields are mapped using matching names, field name matching is performed dynamically each time the script step is performed.

## Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Partial
Custom Web Publishing	No
FileMaker WebDirect	Partial
Runtime solution	Yes

## Originated in

FileMaker Pro 6.0 or earlier

## Description

You can set the import order and use the **Specify import order** option, or perform this script step with the dialog box so the user can set new criteria, such as importing data as a new table.

If the source file is open, the found set is imported; if not, all records in the source table are imported.

When you include this script step in a FileMaker Server scheduled script and you do not select **Perform without dialog**, the text **(NOT compatible)** appears after the script step. The script, however, will run. The behavior will be the same as if **Perform without dialog** was selected. See `Get(DocumentsPathListing)` function for more information.

If you schedule a FileMaker Server script to do any of the following, you will receive an error:

- importing records to new table
- importing records from a folder
- importing images to a container field

## Notes

- Be aware that there are possible security issues with using https, httpspost, and ftps. FileMaker cannot perform a certificate check to verify that the server that you specify is the server that replies. If these security issues are not acceptable in your situation, then do not use this script step.
- When using the Import Records script step or Export Records script step in a FileMaker Server scheduled script, keep the following in mind:
  - Any specified file must be in the FileMaker Server Documents folder, the temporary folder, or a child folder of either the FileMaker Server Documents folder or the temporary folder. For example, the following are all valid paths for file.csv:

```
<Documents>/file.csv
```

```
<Temporary Path>/file.csv
```

```
<Documents>/Folder1/file.csv
```

```
<Temporary Path>/Folder1/Folder2/Folder3/Folder4/file.csv
```

- Any path specified that isn't a complete path to the file (for example, anything other than /Macintosh HD/Library/FileMaker Server/Data/Documents/<0 or more directories>/<filename> ) is evaluated as being relative to the temporary path.
- Any paths that include "." are considered invalid.
- For FileMaker Pro, if an absolute path is not specified in a script that will be executed from FileMaker Pro, the path is assumed to be relative to the location of the database file from which the script was run. For example, if a script containing the Export Records script step is run with the pathname `file:/export.tab`, and the file running the script is `/MyFiles/Library/Books.fmp12`, the exported file will be created as `/MyFiles/Library/export.tab`.
- Support for importing photos from a digital camera or device has been removed from FileMaker Pro.
  - If a script created in an earlier version of FileMaker Pro contains an Import Records [Digital Camera] script step, the step is commented as obsolete. You can remove the step, but you can't edit it.
  - If a button references an Import Records [Digital Camera] script step, the button is disabled and the Import Records script step is commented as obsolete in the Button Setup dialog box.
- FileMaker Go only supports importing from one FileMaker Pro file to another FileMaker Pro file.
- FileMaker Go does not support importing to a new table.
- When using this script step in FileMaker WebDirect, keep the following in mind:
  - FileMaker WebDirect does not support this script step in mobile browsers.
  - FileMaker WebDirect does not support the **Perform without dialog** or **Specify data source** options.
  - FileMaker WebDirect only supports importing from Comma-Separated Text, Tab-Separated Text, DBF, Merge, and Excel file formats.

### Example 1

Imports information from New Product Catalog.xlsx as new records without prompting the user.

```
Go to Layout ["Products"]
Import Records [No dialog; Source: "New Product Catalog.xlsx"; Worksheet:
"Stock"; Add; Mac Roman]
```

### Example 2

Updates existing records with information from New Product Catalog.xlsx.

```
Go to Layout ["Products"]
Sort Records [Restore; No dialog]
Go to Record/Request/Page [First]
Import Records [No dialog; Source: "New Product Catalog.xlsx"; Worksheet:
"Stock"; Update matching; Mac Roman]
```

### Example 3

Sets the next serial value after importing records. Useful when **Perform auto-enter options while importing** is not selected to preserve dates and other auto-entries.

```
Go to Layout ["Products"]
Import Records [No dialog; Source: "New Product Catalog.xlsx"; Worksheet:
"Stock"; Add; Mac Roman]
Set Next Serial Value [Invoices::Invoice ID; Get ( TotalRecordCount ) + 1]
Sort Records [Restore; No dialog]
Go to Record/Request/Page [First]
```



## Export Records

### Purpose

Exports records to a specified file.

### Format

Export records [No dialog; "<output filename>"; *Automatically open; Create email; <platform and character set>*]

### Options

- **Perform without dialog** prevents dialog boxes from displaying when the script step is run from FileMaker Pro. These dialog boxes would let the user set new export criteria.
- **Specify output file** allows you to specify the file and file type to export. Choose the folder you want to export to, or type the folder path directly into the list. Specify one path per line. FileMaker Pro will use the first path it locates. See [Creating file paths](#). The file type you use depends on the import requirements of the program using the exported data. You can also specify options to **Automatically open the file** and **Create email with the file as attachment** after saving.

If FileMaker Pro executes a script that does not specify an absolute path, and the database file containing the script is hosted, the path is assumed to be the current user's Documents folder.

**Note** You can export records as a Microsoft Excel worksheet by choosing **Excel Workbooks (.xlsx)**. For more information on saving FileMaker Pro files as Excel files, see [Saving and sending records as an Excel file](#).

If you specify **XML** as the export file type, the Specify XML and XSL Options dialog box appears, where you can specify an XML grammar and choose an **XSLT** style sheet if you want to transform the XML. The XSLT source may be a file, the result of an HTTP request, or a calculation that generates a file path or an HTTP request.

**Note** Do not export fields whose name is entirely numeric (such as "2") or whose name is a single-byte kana character (Japanese version) using the FMPDSORESLT grammar.

- **Specify export order** uses the export order that was in effect when you added the script step. The last export order used in the file appears as the default and can be edited or deleted. If necessary, choose an output file character set from the list. Select **Apply current layout's data formatting to exported data**, or the formatting of the last exported data will be used.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Partial
Custom Web Publishing	No
FileMaker WebDirect	Partial
Runtime solution	Yes

## Originated in

FileMaker Pro 6.0 or earlier

## Description

You can set the export order before adding this script step, or perform the step with a dialog box so a user can set new criteria. Export Records exports all the records currently being browsed. If you want to limit the set of records you're exporting, use a [find request](#) before using Export Records.

When you include this script step in a FileMaker Server scheduled script and you do not select **Perform without dialog** in the Edit Script dialog box, the text (**NOT compatible**) appears after the script step. The script, however, will run. The behavior will be the same as if **Perform without dialog** was selected. See [Get/DocumentsPathListing](#) function for more information.

## Notes

- When using the Export Records script step or Import Records script step in a FileMaker Server scheduled script, keep the following in mind:
  - Any specified file must be in the FileMaker Server Documents folder, the temporary folder, or a child folder of either the FileMaker Server Documents folder or the temporary folder. For example, the following are all valid paths for file.csv:
 

```
<Documents>/file.csv
<Temporary Path>/file.csv
<Documents>/Folder1/file.csv
<Temporary Path>/Folder1/Folder2/Folder3/Folder4/file.csv
```
  - Any path specified that isn't a complete path to the file (for example, anything other than `/Library/FileMaker Server/Data/Documents/<0 or more directories>/<filename>` ) is evaluated as being relative to the temporary path.
  - Any paths that include “.” are considered invalid.
  - Export to .fmp12 is not supported.
- In FileMaker Go, exporting to .fmp12 and XML formats is not supported.
- When using this script step in FileMaker WebDirect, keep the following in mind:
  - FileMaker WebDirect does not support this script step in mobile browsers.
  - FileMaker WebDirect does not support exporting to .fmp12, XML, or Excel formats.
  - If the **Specify output file** option is selected, FileMaker WebDirect outputs exported records with the specified filename and file type but ignores the specified file path.
  - FileMaker WebDirect outputs exported records to the web browser's default download location.
  - If field data or record data is too long for the export format, the `Get(LastError)` function returns 0 rather than 736.

## Example 1

Finds and sorts records, then exports the found set as an Excel file without prompting the user.

```
Go to Layout ["Invoices"]
Perform Find [Restore]
Sort Records [Restore; No dialog]
Export Records [No dialog; "Unpaid Invoice List.xlsx"; Unicode (UTF-16)]
```

## Example 2

Exports the found set as an Excel file unless a file with that name already exists in the output directory.

```
If [not PatternCount ( Get ( DocumentsPathListing ); "Unpaid Invoice  
List.xlsx" )]  
    Export Records [No dialog; "Unpaid Invoice List.xlsx"; Unicode (UTF-  
16)]  
End If
```

## Save Records As Excel

### Purpose

Saves records to a specified Excel worksheet.

### Format

Save Records as Excel [Restore; No dialog; "<output filename>"; Automatically open; Create email; Records being browsed/Current record]

**Note** In order to save records as a Microsoft Excel worksheet, your privilege set must include **Allow exporting**, or you must set the script to run with full access privileges.

### Options

- **Perform without dialog** prevents the Excel Options dialog box from displaying as the script step executes if you have already specified a file. If you have not specified a file, the Save Records as Excel dialog box displays as the script step executes, but the Excel Options dialog box is not displayed.
- **Specify output file** specifies the file path. Choose the folder you want to export to, or type the file path directly into the list. Specify one path per line. FileMaker Pro will use the first path it locates. See Creating file paths. You can choose to **Automatically open file** or choose to **Create email with file as attachment** to create a blank email with the Excel file as an attachment.

If FileMaker Pro executes a script that does not specify an absolute path, and the database file containing the script is hosted, the path is assumed to be the current user's Documents folder.

- **Specify options** displays the "Save Records as Excel" Options dialog box. From the **Save** list, choose **Records being browsed** or **Current record**. Specify whether the values in the first row should be used as field names or as data. For **Worksheet**, **Title**, **Subject**, and **Author**, you can enter text directly, or click **Specify** to enter a field name or values from a calculation.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 8.0

### Description

This script step operates in all modes except Find mode.

## Example 1

Finds and sorts records, then saves the found set as an Excel file without prompting the user.

```
Go to Layout ["Invoices"]
```

```
Perform Find [Restore]
```

```
Sort Records [Restore; No dialog]
```

```
Save Records as Excel [No dialog; "Unpaid Invoice List.xlsx"; Records  
being browsed]
```

## Save Records As PDF

### Purpose

Saves records to a specified PDF file.

### Format

Save Records as PDF [Restore; Append; No dialog; "<output filename>"; Automatically open; Create email; Records being browsed/Current record/Blank record, as formatted/with boxes/with underlines]

**Note** In order to save records as a PDF file, your privilege set must include **Allow printing**, or you must set the script to run with full access privileges.

### Options

- **Append to existing PDF** appends the records being browsed, the current record, or a blank record after the last page of the specified PDF file. When you append records, the PDF Options dialog box settings in the **Document** and **Initial View** tabs are ignored, but the settings in the **Security** tab are maintained.
- **Perform without dialog** prevents dialog boxes from displaying when the script step executes if a file has already been specified.
- **Specify output file** allows you to specify the file path. Choose the folder you want to save to, or type the file path directly into the list. Specify one path per line. FileMaker Pro will use the first path it locates. See [Creating file paths](#). You can choose to **Automatically open file** or you can choose to **Create email with file as attachment** after saving.

If FileMaker Pro executes a script that does not specify an absolute path, and the database file containing the script is hosted, the path is assumed to be the current user's Documents folder.

- **Specify options** displays the "Save Records as PDF" dialog box. From the **Save** list, choose **Records being browsed**, **Current record**, or **Blank record**. If you select **Blank record**, the **Appearance** pop-up is enabled. The Appearance pop-up box allows you to specify formatting options for fields: as formatted in FileMaker, with boxes, with underlines, or with [placeholder text](#).

Select **Options** to display the PDF Options dialog box.

- In the **Document** tab, you can specify descriptive information for the PDF file. For each of the options in the document tab, you can enter text directly, or click **Specify** to enter a field name or values from a calculation.
- In the **Security** tab, you can assign passwords to the PDF file, as well as print and edit privileges. If print and edit privileges are allowed, you can specify if copying and screen reading software are permitted.
- In the **Initial View** tab, you can define the initial view for the layout and magnification for the PDF file.

## Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

## Originated in

FileMaker Pro 8.0

## Description

This script step operates in all modes except Find mode.

**Note** OS X: Save Records As PDF is not supported in runtime solutions. However, users can print the current record to PDF by choosing **File** menu > **Print** > **PDF**.

## Example 1

Goes to the Products layout, shows all records, sorts the records, and saves the records as a PDF without prompting the user.

```
Go to Layout ["Products"]
Show All Records
Sort Records [Restore; No dialog]
Save Records as PDF [No dialog; "Product Catalog.pdf"; Records being
browsed]
```

## Example 2

Finds all invoices with the current record's Customer ID, sorts, saves the invoices to a PDF, and appends the products purchased by the customer to the PDF.

```
Go to Layout ["Invoices"]
Find Matching Records [Replace; Invoices::Customer ID]
Sort Records [Restore; No dialog]
Save Records as PDF [No dialog; "Customer Backup.pdf"; Records being
browsed]
Go to Related Record [Show only related records; Match found set; From
table: "Products"; Using layout: "Products"]
Save Records as PDF [Append; No dialog; "Customer Backup.pdf"; Records
being browsed]
Go to Layout [original layout]
```

## Save Records As Snapshot Link

### Purpose

Saves a found set of records to a FileMaker Pro Snapshot Link (FMPSL) file.

### Format

Save Records as Snapshot Link [`"<output filename>"; Create email; Records being browsed/Current record`]

### Options

- **Specify output file** allows you to enter the path of the snapshot link. Specify one path per line. FileMaker Pro will use the first path it locates. See [Creating file paths](#). You can also select **Create email with file as attachment** to create a blank email with the snapshot link as an attachment.

If FileMaker Pro executes a script that does not specify an absolute path, and the database file containing the script is hosted, the path is assumed to be the current user's Documents folder.

- **Records being browsed** saves the entire found set of records.
- **Current record** saves only the current record.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	Partial
Runtime solution	No

### Originated in

FileMaker Pro 11.0

### Description

This script step operates in all modes except Find mode.

To send a snapshot link file via SMTP, use the [Send Mail script step](#) with the snapshot link file as an attachment, and place it after the Save Records As Snapshot Link script step in the script.

Use this script step with the `Get(TemporaryPath)` function to save the snapshot link file to a temporary location, if you do not need to store the file locally. If you use `Get(TemporaryPath)` to form a file path, first assign it to a variable, then use the variable in the Specify Output File dialog box. See [Creating file paths](#).

**Note** FileMaker WebDirect does not support the **Specify output file** option. FileMaker WebDirect saves snapshot links to the web browser's default download location.



### Example 1

Saves the current record as a snapshot link and asks where the user wants to save the snapshot link file.

```
Save Records as Snapshot Link [Current record]
```

### Example 2

Saves the [found set](#) as a snapshot link in a temporary directory, then creates an email with the snapshot link as an attachment.

```
Set Variable [$PATH; Value: Get ( TemporaryPath ) & "Invoices.fmpsl"]  
Save Records as Snapshot Link ["$PATH"; Create email; Records being  
browsed]
```

## Found Sets script steps

With Found Sets [script steps](#), you can:

- specify a [find request](#) to find records
- extend or constrain the [found set](#)
- modify the most recent find request
- show all records
- omit records from the found set
- sort and unsort records

## Perform Find

### Purpose

Finds records using find requests stored with the script step.

### Format

Perform Find [Restore]

### Options

The Specify find requests dialog box allows you to create and manage [find requests](#). The requests you create are stored with the script step. For more information, see Specify Find Requests and Edit Find Request dialog boxes.

- **New** opens the Edit Find Request dialog box, where you define criteria for a find request.
- **Edit** opens a selected find request from the list.
- **Duplicate** duplicates one or more selected find requests from the list.
- **Delete** deletes one or more selected find requests from the list.

The Edit Find Request dialog box allows you to create or edit find request criteria.

- For **Action**, select **Find Records** or **Omit Records** to specify whether this find request will find or omit records. Finding records adds them to your [found set](#). Omitting records excludes them. An individual request can find *or* omit records; use multiple requests if you need to find *and* omit records during the same Perform Find script step.
- **Find records when** (or **Omit records when**) shows a list of the fields in your current [table](#). To construct a find request, begin by selecting a field from this list.
  - To select a field from a [related table](#), click the name of the current table at the top of the list and select the related table you want. Select a [related field](#) from this new list.
  - Change the value in **Repetition** to specify a particular cell of a [repeating field](#).
- Type your [search criteria](#) for the selected field in the **Criteria** area.
  - Click **Insert Operator** to further refine your search criteria. See Finding records.
- Click **Add** to add your criteria to the find request.
- To change existing criteria, select the line containing the field and criteria from the top of the dialog box, and make your changes to field and/or criteria. Click **Change** to store your changes.
- To delete existing criteria, select the line containing the field and criteria from the top of the dialog box and click **Remove**.

## Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

## Originated in

FileMaker Pro 6.0 or earlier

## Description

This script step enters Find mode and finds records that match one or more find requests that you set up, that are stored with the script step. If you do not create a find request, this script step will perform the last find request that was executed.

You can use a Perform Find script following an [Enter Find Mode script step](#), to pause the script and allow the user to enter find criteria before performing a find.

## Example 1

Goes to the Invoice Details layout, enters Find mode, pauses for user input, performs a find, and returns to the original layout.

```
Go to Layout ["Invoice Details"]
Enter Find Mode [Pause]
Perform Find [ ]
Go to Layout [original layout]
```

## Example 2

Goes to Find mode, pauses for user input, and performs the find. Displays the Invoice Details layout, Invoices layout, or a custom dialog depending on how many records were found.

```
Set Error Capture [On]
Enter Find Mode [Pause]
Perform Find [ ]
If [Get ( FoundCount ) = 1]
    Go to Layout ["Invoice Details"]
Else If [Get ( FoundCount ) > 1]
    Go to Layout ["Invoices"]
Else
    Show Custom Dialog ["No records were found."]
End If
```

## Perform Quick Find

### Purpose

Performs a quick find based on text you specify or on text returned by a calculation.

### Format

Perform Quick Find [*<value or formula>*]

### Options

*<value or formula>* specifies the search text.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 11.0

### Description

This script step finds records that match one or more search words based on text that you specify or text returned by a calculation.

You can use the `Get(QuickFindText)` function to pass the text that is typed in the [quick find](#) box to the Perform Quick Find script step.

### Example 1

Performs a quick find with the contents of the Custom Quick Find field, sorts the found set, and goes to the first record. Started by the OnObjectSave script trigger.

```
Perform Quick Find [Invoices::Custom Quick Find]
Sort Records [Restore; No dialog]
Go to Record/Request/Page [First]
```

## Example 2

Goes to the Invoice Details layout and performs a quick find using the text in the quick find box. If no records are found, displays a custom dialog. Useful with a custom menu item that performs quick finds.

```
Go to Layout ["Invoice Details"]
Perform Quick Find [Get ( QuickFindText )]
If [Get ( LastError ) = 401]
    Show Custom Dialog ["No records match " & Get ( QuickFindText )]
End If
```

## Constrain Found Set

### Purpose

Narrows the existing found set using criteria in a stored find request.

### Format

Constrain Found Set [Restore]

### Options

The Specify find requests dialog box allows you to create and store a [find request](#) with the script step. See the [Perform Find script step](#).

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step is equivalent to a logical AND search.

**Note** If no records match the find criteria, this script step returns a [found set](#) of zero records.

### Example 1

Constrains the found set to paid invoices or shows all records.

```
Show Custom Dialog ["Display only paid invoices?"]
If [Get ( LastMessageChoice ) = 1]
    Constrain Found Set [Restore]
Else
    Show All Records
End If
```

## Extend Found Set

### Purpose

Broadens the existing found set using criteria in a stored find request.

### Format

Extend Found Set [Restore]

### Options

The Specify find requests dialog box allows you to create and store a [find request](#) with the script step. See the [Perform Find script step](#).

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step is equivalent to a logical OR search.

### Example 1

Extends the [found set](#) to include unpaid invoices.

```
Show Custom Dialog ["Include unpaid invoices in the found set?"]
If [Get ( LastMessageChoice ) = 1]
    Extend Found Set [Restore]
End If
```



## Modify Last Find

### Purpose

Changes the most recent find request.

### Format

Modify Last Find

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Modify Last Find runs in Find mode. If the database is in another mode when the script runs, FileMaker Pro switches to Find mode before running the script.

### Example 1

Performs a find. If no records were found, modifies the [find request](#).

```
Perform Find [Restore]
If [Get ( FoundCount ) = 0]
    Modify Last Find
End If
```

## Example 2

Performs a find, then sorts the found set. If no records were found, allows the user to modify the find request.

```
Set Error Capture [On]
Enter Find Mode [Pause]
Perform Find [ ]
If [Get (LastError) = 401]
    Modify Last Find
Else
    Sort Records [Restore; No dialog]
End If
```

## Show All Records

### Purpose

Finds all records in the table underlying the foreground window and selects the current record.

### Format

Show All Records

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Use this script step to redisplay all the records after working with a [found set](#).

Use Show All Records in Browse mode or Preview mode. If you perform this script step in Find mode or Layout mode, FileMaker Pro switches to Browse mode after the records have been found.

### Example 1

Goes to the Invoices layout, shows all records, and performs a sort.

```
Go to Layout ["Invoices"]
Show All Records
Sort Records [Restore; No dialog]
```

### Example 2

Performs a find, shows all records if no records were found, and sorts the found set.

```
Perform Find [Restore]
If [Get (FoundCount) = 0]
    Show All Records
End If
Sort Records [Restore; No dialog]
```

## Show Omitted Only

### Purpose

Finds the records not in the current found set.

### Format

Show Omitted Only

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Use this script step in Browse mode or Preview mode. If you perform this script step in Find mode or Layout mode, FileMaker Pro switches to Browse mode after the records have been found.

### Example 1

Shows all omitted records.

```
Show Custom Dialog ["Show omitted records?"]
If [Get ( LastMessageChoice ) = 1]
    Show Omitted Only
End If
```

## Example 2

Demonstrates that using the [Find Matching Records script step](#) instead of Show Omitted Only can be a simpler way to create a [found set](#) of only the current record.

```
#With Show Omitted Only, multiple steps are necessary  
#to create a new found set, omit the current record,  
#and show only the omitted record.
```

```
Show All Records  
Omit Record  
Show Omitted Only
```

```
#A single Find Matching Records script step can perform the same task  
#when a field with unique values, such as an Invoice ID field, is  
specified.
```

```
Find Matching Records [Replace; Invoices::Invoice ID]
```

## Omit Record

### Purpose

Omits the current record from the found set and selects the next record in the table.

### Format

Omit Record

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step omits (temporarily hides) the current record from the found set and makes the next record in the table the current record.

Omit Record only operates in Browse mode and Find mode. When this script step is performed in Find mode, it causes the [find request](#) to become an Omit request, as if **Omit** had been clicked.

### Example 1

Omits the current record from the [found set](#) if it was created before the current date.

```
If [Invoices::Date Created < Get ( CurrentDate ) ]
    Omit Record
End If
```

## Omit Multiple Records

### Purpose

Omits several records from the found set, starting with the current record, and selects the next record in the table.

### Format

Omit Multiple Records [No dialog; <number of records>]

### Options

- **Perform without dialog** prevents a dialog box from displaying when the script step executes; the dialog lets the user enter the number of records to be omitted.  
When **Perform without dialog** is selected, if you do not specify the number of records, only the current record is omitted.
- **Specify records** specifies the exact number of records you want to omit. The calculation result must be a number.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Yes
Custom Web Publishing	Partial
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step omits (temporarily hides) several records from the found set, starting with the current record, and makes the next record in the table the current record.

If this script step is performed from Layout mode, FileMaker Pro switches to Browse mode after the script step has been performed.

### Example 1

Omits all records in the current [found set](#).

```
Go to Record/Request/Page [First]
Omit Multiple Records [No dialog; Get ( FoundCount )]
```

## Sort Records

### Purpose

Sorts the records in the current found set according to specified criteria.

### Format

Sort Records [Restore; No dialog]

### Options

- **Perform without dialog** prevents display of a dialog box when the script step executes that lets the user enter a different set of sort instructions.
- **Specify sort order** allows you to create a sort order and store it with the script step. When **Specify sort order** is not selected, FileMaker Pro uses the most recently executed sort instructions.
- **Keep records in sorted order** places a new or changed record that's in sorted order into the adjusted order after the record is committed. When this option is not selected, new or changed records stay in the same position in the sort order until a find request is performed or the records are sorted by different criteria.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Yes
Custom Web Publishing	Partial
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Find the records you want to sort (using [Perform Find script step](#) or [Show All Records script step](#)) before using this script step. If you sort a [repeating field](#), FileMaker Pro sorts on only the first entry in that field. You don't need to use the [Enter Browse Mode script step](#) or [Go to Record/Request/Page script step](#) after using Sort Records.

Each Sort Records script step can store a unique sort order; the sorting instructions are stored with the step, not the script. You can use this step several times within the same script and store a different sort order for each occurrence.



**Note** Items in the sort order that aren't valid when the script step is performed are ignored. When you specify a sort order in a database containing multiple [tables](#), FileMaker Pro stores the table name for each sort field in the sort order. For example, a sort order using the Last Name field of the Contacts table is stored in the sort order as Contacts::Last Name. If the Sort Records script step is performed when a table other than Contacts is the active table, Contacts::Last Name cannot be evaluated, and is ignored in the sort order.

### Example 1

Goes to the Invoices layout, performs a find, sorts the records, then goes to the first record in the [found set](#).

```
Go to Layout ["Invoices"]
Perform Find [Restore]
Sort Records [Restore; No dialog]
Go to Record/Request/Page [First]
```

## Sort Records by Field

### Purpose

Sorts the records in the current found set according to the context of a specified field.

### Format

```
Sort Records by Field[Ascending/Descending/Associated value list;
<table::field>]
```

### Options

- **Specify target field** specifies the field you want to sort by.
- **Ascending** displays data in [ascending order](#).
- **Descending** displays data in [descending order](#).
- **Associated value list** displays data in the order determined by the value list associated with the field.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 12.0

### Description

Sorts the records in the current [found set](#) according to the context of a specified field, letting you create scripts that behave similarly to interactively using the shortcut menu in Table View. If you do not specify a field, the script sorts by the field that is active when the script runs. If there is no active field when the script runs, FileMaker Pro displays an invalid sort order alert.

**Tip** You can find the records you want to sort (using [Perform Find script step](#) or [Show All Records script step](#)) before using this script step. You don't need to use the [Enter Browse Mode script step](#) or [Go to Record/Request/Page script step](#) after using Sort Records by Field.

### Example 1

Sorts the current found set by the active field. Can be started by the OnObjectValidate script trigger to maintain the current found set's sort order when field values change.

```
Sort Records by Field [Ascending]
```

## Example 2

Shows invoices for the current customer ID, with the most recent invoice listed first.

```
Find Matching Records [Replace; Invoices::Customer ID]
```

```
Sort Records by Field [Descending; Invoices::Invoice ID]
```

## Unsort Records

### Purpose

Restores the records in the current found set to the order in which the records were entered.

### Format

Unsort Records

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Use this script step when it's important to maintain the original creation order, as with invoices entered by invoice number or membership records entered by date.

**Note** You don't need to perform an Unsort Records script step before executing a [Sort Records script step](#).

### Example 1

Goes to the Print Invoices layout, sorts the records, prints, returns to the original layout, then unsorts the records.

```
Go to Layout ["Print Invoices"]
Sort Records [Restore; No dialog]
Print [No dialog]
Go to Layout [original layout]
Unsort Records
```

## Find Matching Records

### Purpose

Finds records based on the context of a specified field.

### Format

Find Matching Records[Replace/Constrain/Extend; <table::field>]

### Options

- **Specify target field** specifies the field you want to search by.
- **Replace** searches the entire database and replaces the current found set with records that match the contents of the active field.
- **Constrain** searches the found set and displays matching records based on the contents of the active field (a logical AND search).
- **Extend** broadens your found set to include additional records that match criteria in the specified field (a logical OR search).

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 12.0

### Description

Finds records based on the context of a specified field, letting you create scripts that behave similarly to using the shortcut menu in Table View.

If you do not specify a field, FileMaker Pro searches based on the contents of the field that is active when the script runs. If data is selected in the active field, FileMaker Pro searches for the selected data. If data is not selected, FileMaker Pro searches for the entire contents of the active field. If you do not specify a field and there is no active field when the script runs, FileMaker Pro displays an invalid command alert.

Find Matching Records runs in Browse or Preview modes. If the database is in another mode when the script runs, FileMaker Pro switches to Browse mode before running the script.

Find Matching Records can be copied and pasted or imported into other FileMaker Pro files.

### Example 1

Finds all records with the same category as the current record, then switches to Table View.

```
Find Matching Records [Replace; Products::Category]
View As [View as Table]
```

### Example 2

Opens a new window, goes to the Invoices layout, finds all records in the found set with the same Customer ID as the current record, sorts the new found set, and goes to the first record.

```
New Window [Style: Document]
Go to Layout ["Invoices"]
Find Matching Records [Constrain; Invoices::Customer ID]
Sort Records [Restore; No dialog]
Go to Record/Request/Page [First]
```

### Example 3

Either extends the found set with records matching the current record's Customer ID or creates a new found set with records matching the current record's Customer ID.

```
Show Custom Dialog ["Do you want to add the current customer to the found
set?"]
If [ Get ( LastMessageChoice ) = 1 ]
    Find Matching Records [Extend; Invoices::Customer ID]
Else
    Find Matching Records [Replace; Invoices::Customer ID]
End If
```

## Windows script steps

Windows [script steps](#) affect screen elements and windows. You can:

- open or close a window
- select a window
- arrange windows
- move or resize a window
- update a window
- freeze a window
- scroll a window
- show or hide a window, the [status toolbar](#), or the text ruler
- set the title of a window
- set the zoom level
- view data as a list, table, or form
- refresh a window

## New Window

### Purpose

Creates a new window based on the foreground window.

### Format

New Window[Style: Document/Floating Document/Dialog; Name: <name of window>; Height: n; Width: n; Top: n; Left: n]

### Options

You can choose one of the following window styles:

- **Document Window** opens a [document window](#).
- **Floating Document Window** opens a [floating document window](#).
- **Dialog Window** opens a [dialog window](#).

You can specify these window settings:

- **Window Name** is the name for the new window. Window names do not have to be unique.
- **Height** is the height of the new window, in points.
- **Width** is the width of the new window, in points.
- **Distance from Top** is the new window's distance, in points, from the top of the FileMaker Pro window (Windows) or the top of the screen (OS X).
- **Distance from Left** is the new window's distance, in points, from the left of the FileMaker Pro window (Windows) or the left of the screen (OS X).

You can set these window controls:

- **Close** enables the close button in the window's title bar.
- **Minimize** enables the minimize button in a window's title bar.
- **Maximize** enables the maximize button in the window's title bar.
- **Zoom Control Area** enables the zoom control and [Mode pop-up menu](#) at the bottom left of the window.
- **Resize** allows users to resize the window.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Partial
Custom Web Publishing	Partial
FileMaker WebDirect	Partial
Runtime solution	Yes



## Originated in

FileMaker Pro 6.0 or earlier

## Description

This script step creates a new document window, floating document window, or dialog window based on the active window.

It is not necessary to enter values for each option. When no value is entered, FileMaker Pro uses the default value associated with the **Window** menu > **New Window** command.

See Working with windows and About window styles.

**Note** In FileMaker WebDirect and Custom Web Publishing, this script step opens a new virtual window in the web browser. Inactive virtual windows remain open but are not visible. To change the current (active) virtual window, use the [Select Window script step](#). Window style settings are not supported.

## Example 1

Goes to the Customers layout in a new window and sorts by the Customer ID field.

```
New Window [Style: Document; Top: Get ( WindowTop ) + 25; Left: Get (
WindowLeft ) + 25]
Go to Layout ["Customers"]
Sort Records by Field [Descending; Customers::Customer ID]
```

## Example 2

Goes to the Print Invoices layout in a new floating window and enters Preview mode.

```
New Window [Style: Floating Document; Name: "Print Invoices"; Top: Get (
WindowTop ) + 25; Left: Get ( WindowLeft ) + 25]
Go to Layout ["Print Invoices"]
Enter Preview Mode [ ]
```

## Select Window

### Purpose

Specifies a window by name and makes it the foreground window.

### Format

Select Window [Current Window/Name:<name of window>; Current file]

### Options

- **Current Window** brings the active window of the file that contains the script to the foreground.
- **Window Name** specifies which window you want FileMaker Pro to bring to the foreground.
- **Current file only** restricts matches to the current file (not selecting this option matches all available FileMaker Pro files).

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Because FileMaker Pro script steps are always performed in the foreground table, it is sometimes necessary to bring a specific window to the front. Use this script step when you are working with scripts in multi-table files to make certain that a script step is performed in the intended table.

### Notes

- In FileMaker WebDirect and Custom Web Publishing, this script step displays the specified virtual window in the web browser window. The previous virtual window remains open when it is not displayed.
- Window name selection is not case-sensitive. This script will select the first matching window and bring it to the front.

- The Select Window script step does not open a window of a related file when the related file is opened in a hidden state, such as when a file is opened because it is the source file of a related field. To use the Select Window script step with this type of related file, open the related file using the Open File script step.

For example, a layout in the file Data Entry contains a related field from the file Companies. When this layout is displayed, FileMaker Pro opens the Companies file in a hidden state. To open a new window displaying the hidden related file, use a script such as:

```
Open File[Open Hidden; "Companies"]
Select Window[Name: "Companies"]
```

To return the file to its original state, perform a Close Window [] script step to close the open window.

- Select Window can make visible a hidden related file if the script step is executed from within the hidden file.

### Example 1

Selects the Print Invoices window. If the Print Invoices window is not open, creates a new window and goes to the Print Invoices layout.

```
Select Window [Name: "Print invoices"]
If [Get ( LastError ) = 112]
    New Window [Name: "Print Invoices"; Style: Floating Document]
    Go to Layout ["Print Invoices"]
End If
```

## Close Window

### Purpose

Closes the currently active window or any other window by name.

### Format

Close Window [Current Window/Name: <name of window>; Current file]

### Options

- **Current Window** closes the active window.
- **Window Name** specifies which window you want FileMaker Pro to close.
- **Current file only** restricts matches to the current file (not selecting this option matches all available FileMaker Pro files).

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Closing the last window of a file closes the file and halts execution of the current script. In FileMaker WebDirect, closing the last window logs out the current web session.

### Example 1

Goes to a related record in the Invoices table using the Print Invoices layout, prints, and closes the window.

```
Go to Related Record [Show only related records; From table: "Invoices";
Using layout: "Print Invoices"; New Window]
Print [Restore: Printer; No dialog]
Close Window [Current Window]
```

## Example 2

Closes the current window if it is hidden.

```
If [Get ( WindowVisible ) = 0]  
    Close Window [Current Window]  
End If
```

## Example 3

Closes the Invoice Details window if it is open.

```
If [PatternCount ( WindowNames ( Get ( FileName ) ) ; "Invoice Details" )]  
    Close Window [Name: "Invoice Details"]  
End If
```

## Adjust Window

### Purpose

Hides or changes the size of a window.

### Format

Adjust Window [Resize to fit/Maximize/Minimize/Restore/Hide]

### Options

- **Resize to fit** resizes the window to the minimum size possible while keeping all items in the layout visible.
- **Maximize** resizes the window to full-screen size.
- **Minimize** reduces the window to an icon on the status bar (Windows) or Dock (OS X)
- **Restore** returns the window to its previous size.
- **Hide** hides the current database window from view. This option is equivalent to the Hide Window menu command

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Example 1

Goes to the Print Invoices layout, enters Preview mode, and resizes the window to fit the viewing area.

```
Go to Layout ["Print Invoices"]
Enter Preview Mode [ ]
Adjust Window [Resize to Fit]
```

## Move/Resize Window

### Purpose

Adjusts the size or location of the chosen window.

### Format

Move/Resize Window [Current Window/Name: *<name of window>*; Current file; Height: *<n>*; Width: *<n>*; Top: *<n>*; Left: *<n>*]

### Options

- **Current Window** selects the current foreground window when the script step is performed.
- **Window Name** selects an open window by name.
- **Current file only** restricts matches to the current file (not selecting this option matches all available FileMaker Pro files).
- **Height** is the height of the adjusted window in points.
- **Width** is the width of the adjusted window in points.
- **Distance from top** is the adjusted window's distance in points from the top of the screen (OS X) or top of the FileMaker Pro window (Windows).
- **Distance from left** is the adjusted window's distance in points from the left of the screen (OS X) or left of the FileMaker Pro window (Windows).

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

The adjusted window maintains the same layout, same table, same [found set](#), and same current record as the original window.

### Notes

- Window name selection is not case-sensitive.
- It is not necessary to enter values for each option. When no value is entered, FileMaker Pro uses the original location and size of the window as default values.

- Minimum window height and width depend on the script user's operating system. If the height and width values you specify are less than the minimum, FileMaker Pro uses the minimum values.
- Maximum window height and width depend on the script user's screen resolution. If the height or width values you specify are greater than the maximum, FileMaker Pro uses the maximum value possible.
- You can move a window off-screen by supplying negative top and/or left values, which can be useful for multiple monitor environments.
- Windows: FileMaker Pro orients the moved window to the top left corner of the visible part of the application window. Note that this may not be the (0,0) point of the window, depending on how the current file window is positioned (for example, if half of the file window extends past the left border of the application window, you would need to scroll to the left to see the (0,0) point of the application window).

### Example 1

Goes to the Customer Info layout, positions the window in the top-left corner of the FileMaker Pro window (Windows) or the top-left corner of the screen (OS X), and resizes the window.

```
Go to Layout ["Customer Info"]  
Move/Resize Window [Current Window; Height: 400; Width: 600; Top: 0; Left:  
0]
```



## Arrange All Windows

### Purpose

Adjusts the size and location of all open windows.

### Format

Arrange All Windows [Tile Horizontally/Tile Vertically/Cascade Window/Bring All To Front]

### Options

- **Tile Horizontally** positions open windows in a left/right orientation. Windows are resized to prevent overlapping.
- **Tile Vertically** positions open windows in a top/bottom orientation. Windows are resized to prevent overlapping.
- **Cascade Window** positions windows in an overlapping pattern, beginning in the top left corner of the screen. Windows are resized to fill the screen, less any offset.
- **Bring All to Front** (OS X) moves all open FileMaker Pro windows to the front. Windows are not resized.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

The size and location of the open windows are the only things that change; current table, active window, and active record are not affected by this script step.

### Example 1

Opens a new window, goes to the Invoices layout, and arranges all FileMaker Pro windows in an overlapping pattern.

```
New Window [Name: "Invoice List"; Style: Document]
Go to Layout ["Invoices"]
Arrange All Windows [Cascade Window]
```

## Example 2

Opens two windows and arranges them top to bottom.

```
New Window [Name: "Invoice List"; Style: Document]
Go to Layout ["Invoices"]
New Window [Name: "Customer List"; Style: Document]
Go to Layout ["Customers"]
Arrange All Windows [Tile Vertically]
```

## Freeze Window

### Purpose

Stops updating the active window.

### Format

Freeze Window

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Use Freeze Window to hide actions from the user while FileMaker Pro performs the remainder of the script. A Pause/Resume script step unfreezes a Freeze Window script step.

**Note** A Refresh Window step is not needed if it would be the last step in a script. FileMaker Pro automatically turns off Freeze Window and refreshes the display when a script ends. Use Refresh Window to force a window update within a script.

### Example 1

Freezes the window, goes to the Print Invoices layout, prints, and returns to the original layout.

```
Freeze Window
Go to Layout ["Print Invoices"]
Print [Restore: Printer; No dialog]
Go to Layout [original layout]
```

## Example 2

Freezes the window, then copies data from the Work Phone field to the Day Contact field in all records.

```
Freeze Window
Go to Record/Request/Page [First]
Loop
    Set Field [Customers::Day Contact; Customers::Work Phone]
    Go to Record/Request/Page [Next; Exit after last]
End Loop
```

## Refresh Window

### Purpose

Updates the entire contents of the FileMaker Pro document window, including any related records.

### Format

Refresh Window [Flush cached join results; Flush cached external data]

### Options

- **Flush cached join results** deletes the results of queries for related records and causes related records to be refreshed. Do not select this option if you know your script does not affect related data, and if you want to minimize the performance impact of re-accessing related data (particularly when sharing a database over a network).
- **Flush cached external data** deletes the results of queries for related ODBC data source records and causes related ODBC records to be refreshed. FileMaker Pro dumps the internal cache and refreshes record data. Do not select this option if you know your script does not access ODBC data.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step updates the entire contents of the FileMaker Pro window, including any related records, and updates the visibility state of all objects with hidden conditions in the window.

You do not need to select **Flush cached join results** in order to refresh the entire window.

This script step updates records (rows) in the current ODBC table.

**Note** To update a single layout object without updating the entire window, use the [Refresh Object script step](#).

## Example 1

Updates the Total field to include taxes and beeps after all records are updated.

```
Go to Record/Request/Page [First]
Loop
    Set Field [Invoices::Total; Invoices::Total * Invoices::Tax]
    Go to Record/Request/Page [Next; Exit after last]
End Loop
Refresh Window [ ]
Beep
```

## Scroll Window

### Purpose

Scrolls a window or layout vertically, or brings the current field into view.

### Format

Scroll Window [Home/End/Page Up/Page Down/To Selection]

### Options

- **Home**, **End**, **Page Up**, or **Page Down** scrolls the window to the beginning, to the end, up a page, or down a page.
- **To Selection** brings the current field into view (similar to tabbing into a field).

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step scrolls a window up or down, scrolls to the top or bottom of a layout, or brings the current field into view.

### Example 1

Goes to the Invoices layout, scrolls to the bottom of the window, and creates a new record.

```
Go to Layout ["Invoices"]
Scroll Window [End]
New Record/Request
```

### Example 2

Performs a find, sorts, and scrolls to the top of the window.

```
Perform Find [Restore]
Sort Records [Restore; No dialog]
Scroll Window [Home]
```

## Show/Hide Menubar

### Purpose

Shows or hides the menu bar in FileMaker WebDirect and FileMaker Go.

### Format

Show/Hide Menubar [Lock; Show/Hide/Toggle]

### Options

- **Lock** prevents the state of the menu bar from being changed (FileMaker Go only).
- **Show** tells FileMaker WebDirect or FileMaker Go to show the menu bar.
- **Hide** tells FileMaker WebDirect or FileMaker Go to hide the menu bar.
- **Toggle** switches between showing and hiding the menu bar.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	No
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	Yes
Runtime solution	No

### Originated in

FileMaker Pro 13.0

### Example 1

If the Guest account is logged in, goes to the Invoices layout and hides the menu bar and status toolbar.

```
If [Get ( AccountName ) = "[Guest]"]
    Go to Layout ["Invoices"]
    Show/Hide Menubar [Hide]
    Show/Hide Toolbars [Hide]
End If
```



## Show/Hide Toolbars

### Purpose

Shows or hides the FileMaker Pro status toolbar and the FileMaker Go toolbar and editing toolbar.

### Format

Show/Hide Toolbars [Lock; Show/Hide/Toggle; Include Edit Toolbar <on or off>]

### Options

- **Lock** prohibits the user from manually showing or hiding the FileMaker Pro [status toolbar](#) or the FileMaker Go toolbar.
- **Show** shows the FileMaker Pro status toolbar and FileMaker Go toolbar.
- **Hide** hides the FileMaker Pro status toolbar and FileMaker Go toolbar.
- **Toggle** switches between showing and hiding the FileMaker Pro status toolbar (equivalent to clicking **Show/Hide Status Toolbar**) and FileMaker Go toolbar.
- **Include Edit Toolbar** turns the FileMaker Go editing toolbar on or off.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Example 1

Enters Find mode, shows the status toolbar, pauses for user input, performs the find, and hides the status toolbar.

```
Enter Find Mode [ ]
Show/Hide Toolbars [Show]
Pause/Resume Script [Indefinitely]
Perform Find [ ]
Show/Hide Toolbars [Hide]
```

## Show/Hide Text Ruler

### Purpose

Shows or hides the text ruler.

### Format

Show/Hide Text Ruler [Show/Hide/Toggle]

### Options

- **Show** tells FileMaker Pro to show the text ruler.
- **Hide** tells FileMaker Pro to hide the text ruler.
- **Toggle** switches between showing and hiding the text ruler.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

The text ruler is used to format paragraphs and tabs within fields and on layouts.

### Example 1

Goes to the Description field on the Product Details layout and shows the text ruler.

```
Go to Layout ["Product Details"]
Go to Field [Products::Description]
Show/Hide Text Ruler [Show]
```

## Set Allowed Orientations

### Purpose

Controls the orientation of FileMaker Go and layouts displayed in FileMaker Go.

### Format

Set Allowed Orientations [Portrait: On/Off; Portrait Upside Down: On/Off; Landscape Left: On/Off; Landscape Right: On/Off]

### Options

By default, all orientations are selected. If only one option is selected:

- **Portrait** rotates FileMaker Go and all layouts and content to portrait orientation.
- **Portrait Upside Down** rotates FileMaker Go and all layouts and content to portrait upside down orientation.
- **Landscape Left** rotates FileMaker Go and all layouts and content to landscape left orientation.
- **Landscape Right** rotates FileMaker Go and all layouts and content to landscape right orientation.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	No
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

### Originated in

FileMaker Pro 14.0

### Description

Specify one to four orientations for FileMaker Go and all layouts and content.

### Example 1

When an iOS device is rotated, changes the orientation for FileMaker Go and all layouts and content to portrait upside down only.

```
Set Allowed Orientations [Portrait: Off; PortraitUpsideDown: On;
LandscapeLeft: Off; LandscapeRight: Off]
```

## Set Window Title

### Purpose

Changes the title of a window.

### Format

Set Window Title [Current window/Name: <name of window>; Current file; New Title: <new window name>]

### Options

- **Current Window** renames the current foreground window when the script step is performed.
- **Window Name** selects an open window by name.
- **Current file only** restricts matches to the current file (not selecting this option matches all available FileMaker Pro files).
- **Rename Window** specifies the new title for the window.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

You can change the name of any open window.

**Note** Window name selection is not case-sensitive.

### Example 1

Performs a find and sets the window title to display the number of records that were found.

```
Perform Find [Restore]
Set Window Title [Current Window; New Title: Get ( FoundCount ) & "
records found"]
```

## Set Zoom Level

### Purpose

Enlarges or reduces the image on the screen.

### Format

Set Zoom Level [Lock; 25%...400%/Zoom In/Zoom Out]

### Options

- **Lock** prohibits users from making changes to the zoom level.
  - **Zoom In** reduces the screen image by one zoom level.
  - **Zoom Out** enlarges the screen image by one zoom level.
  - Reduction values: **100%**, **75%**, **50%**, or **25%**.
  - Enlargement values: **150%**, **200%**, **300%**, or **400%**.
- Note** For FileMaker Go, the maximum enlargement value is 200%.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Use this script step to specify preset zoom levels. To set a default zoom level, you can use the OnWindowOpen [script trigger](#).

### Example 1

Goes to the Invoices iPhone layout, sets the zoom level to 100%, and locks the zoom level.

```
Go to Layout ["Invoices iPhone"]
Set Zoom Level [Lock; 100%]
```

## View As

### Purpose

Displays data in the specified format.

### Format

View As [View as Form/View as List/View as Table/Cycle]

### Options

- **View as Form** tells FileMaker Pro to display records page by page in the format determined by the database designer.
- **View as List** tells FileMaker Pro to display records as records in a list, so they can be browsed without clicking the backward and forward buttons in the status toolbar.
- **View as Table** tells FileMaker Pro to display the records on screen in a grid, so that many fields and records may be viewed at one time in a format similar to a spreadsheet.
- **Cycle** switches from the current view to the next view.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Partial
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

You can choose `View as Form`, `View as List`, `View as Table`, or you can choose `Cycle` to switch from the current format to the next format.

**Note** FileMaker WebDirect does not support the **View as Table** option.

### Example 1

Imports records, sorts, and switches to Table View.

```
Import Records [ ]
Sort Records [Restore; No dialog]
View As [View as Table]
```

## Example 2

Performs a find, then changes view depending on the number of records in the found set.

```
Enter Find Mode [Pause]
If [Get (FoundCount) = 1]
    View As [View as Form]
Else If [Get ( FoundCount ) > 1]
    View As [View as List]
End If
```

## Files script steps

Files [script steps](#) operate on entire files. With Files script steps, you can:

- create a file
- open or close a file
- save a copy of a file
- convert a file to FileMaker Pro
- set multi-user status
- allow users to choose formats for the file
- recover a file
- set print setup options
- print



## New File

### Purpose

Allows the user to create a new file.

### Format

New File

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step opens the New File dialog box. After the new file opens, the script becomes active again, and if script steps remain, the script continues. The new file remains open and active.

**Tip** If you want the original file to remain active, add a Select Window script step after the New File step.

### Example 1

Exports records, then creates a new file to import the records into.

```
Set Error Capture [On]
Export Records [ ]
New File
```

## Open File

### Purpose

Opens the specified FileMaker file or allows the user to select a file to open.

### Format

Open File [Open hidden; "<filename>"]

### Options

- **Open hidden** causes FileMaker Pro to open and hide the specified database.
- **Add FileMaker Data Source** specifies a FileMaker Pro database to open.
- **Add ODBC Data Source** specifies an ODBC data source to open.
- **Manage Data Sources** allows you to modify or remove external data sources you have added. See Editing external FileMaker data sources and Editing ODBC data sources.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Partial

### Originated in

FileMaker Pro 6.0 or earlier

### Description

For ODBC data sources, this script step reestablishes a link to the ODBC data source.

Script steps after Open File execute in the FileMaker file that contains the script, not the file opened by the script.

If you don't specify a file, FileMaker Pro displays the Open File dialog box when the Open File script step executes so that the user can specify a file. The Open File dialog box will also be displayed if the file used in the script has been moved, deleted, or renamed.

### Notes

- If new database creation has been disabled in your installation of FileMaker Pro, it will not be possible to convert file types such as Microsoft Excel or tab delimited files into FileMaker Pro databases. However, you can still import the data from other file types into FileMaker Pro (if you open the database with a password that allows you to import). If you need more information, contact your system administrator.

- In runtime solutions, the Open File script step returns an error if an external file is not bound to the solution.
- This script step is unable to open a file from an [unauthorized](#) file.
- If the specified file is opened then hidden by FileMaker Pro, scripts that are set to run upon opening are still executed.

### Example 1

Exports records from the current database, opens the Invoices Backup database, and runs the Import Invoices script from the Invoices Backup database.

```
Export Records [ ]  
Open File ["Invoices Backup"]  
Perform Script ["Import Invoices" from file: "Invoices Backup"]
```

## Close File

### Purpose

Closes the specified FileMaker file.

### Format

Close File [Current File/"<filename>"]

### Options

- **Current File** closes the file that runs the script step.
- **Add FileMaker Data Source** specifies a FileMaker Pro file to disconnect from.
- **Add ODBC Data Source** specifies an ODBC data source to disconnect from.
- **Manage Data Sources** allows you to modify or remove external data sources you have added. See [Editing external FileMaker data sources](#) and [Editing ODBC data sources](#).

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

If you do not specify a file, FileMaker Pro stops the currently running script and closes the FileMaker file that the script is running from.

This script step disconnects the specified ODBC data source. This lets you “re-login” to the specified ODBC data source with a different user name and password, without closing the FileMaker file.

### Notes

- If a user moves the specified file, FileMaker Pro might not be able to close the file.
- Close File can't close external data sources that are referenced in the [relationships graph](#).

### Example 1

Opens the Invoices database and performs a script, then closes the current database.

```
Open File ["Invoices"]
Perform Script ["Sort Records" from file: "Invoices"]
Close File [Current File]
```

## Convert File

### Purpose

Converts a supported file type into a FileMaker Pro file.

### Format

Convert File [Open File; No dialog; Skip Indexes; "<filename or source>"]

### Options

- **Open file after conversion** lets you specify whether you want a FileMaker Pro file to open automatically after conversion.
- **Specify data source** lets you choose the file or source of the data to be converted. If you don't specify a file, FileMaker Pro displays the Open File dialog box when the script step executes. For more information about converting files, refer to the FileMaker Knowledge Base available at <http://help.filemaker.com>.
- Depending on the file or source you choose, a dialog box may appear for specifying the following additional options.

When you choose this file or source	Do this
File	In the Specify File dialog box, choose the file you want to import. See Creating file paths.
XML Data	In the Specify XML and XSL Options dialog box, choose the source of the XML data that you want to import, and choose an XSLT style sheet if you want to apply one prior to import. The XML and XSLT source may be a file or the result of an HTTP request, or a field that contains a file path or an HTTP request. For more information, see Importing XML data.
ODBC Data	Specify the data source name and location, the user ID and password (if any), and the SQL query to be executed. For more information, see Constructing an SQL query for importing via ODBC.

- **Perform without dialog** prevents certain dialog boxes from displaying when the script step is run.
  - When converting FileMaker files, the dialog boxes used to rename the old file and name the converted file are not displayed.
  - When converting other file types, the dialog boxes that are used to specify the way a file and its data are converted are not displayed.

In these two cases, the default settings for those dialog boxes are used instead.

- **Skip Indexes** lets you specify whether FileMaker Pro should create an index in a converted FileMaker file.

## Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

## Originated in

FileMaker Pro 6.0 or earlier

## Description

See Supported import/export file formats for more information.

**Note** You cannot use this command to convert the contents of a folder. Each file in a folder must be converted separately.

## Example 1

Converts the Invoices database to the current FileMaker format.

```
Show Custom Dialog ["Convert the Invoices database?"]
If [Get ( LastMessageChoice ) = 1]
    Convert File ["Invoices.fp7"]
End If
```

## Set Multi-User

### Purpose

Allows or disallows network access to a file.

### Format

```
Set Multi-User [On/On (Hidden)/Off]
```

### Options

- **On** allows network access via FileMaker Network Sharing. This is the same as selecting **All Users** in the FileMaker Network Settings dialog box.
- **On (Hidden)** allows network access but prevents the name of the shared database from appearing in the Hosts tab in the Launch Center window. This is the same as selecting the **All Users** and **Don't display in Launch Center** options in the FileMaker Network Settings dialog box.
- **Off** disallows network access. This is the same as selecting **No Users** in the FileMaker Network Settings dialog box.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

### Originated in

FileMaker Pro 6.0 or earlier

### Description

A shared, or multi-user, database is a file that's available to users on a network. See Sharing and hosting files for more information.

### Example 1

Guarantees that a database is hosted upon launch. Started by the OnFirstWindowOpen script trigger.

```
Show Custom Dialog ["Make this file available on the network?"]
If [Get ( LastMessageChoice ) = 1]
    Set Multi-User [On]
End If
```

## Example 2

Turns network sharing on if it is off.

```
If [Get ( MultiUserState ) = 0]  
    Set Multi-User [On]  
End If
```



## Set Use System Formats

### Purpose

Sets the formats either to those stored with the file or to the current system formats.

### Format

Set Use System Formats [On/Off]

### Options

- **On** instructs FileMaker Pro to use the current system formats.
- **Off** instructs FileMaker Pro to use the formats saved with the file.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Each FileMaker Pro database file stores the date, time, and number formatting of the computer on which the database was created. These regional settings may be different from the system formats currently set on your computer.

When you use the current system formats, you don't change the formats saved with the file – you simply enter and view data in a format that's familiar to you. For example, if a database was created in Australia, where dates are usually written day-month-year, and you open it in the United States, where dates are usually written month-day-year, FileMaker Pro alerts you that the system formats are different.

A [startup script](#) that uses the Set Use System Formats script step can be used to control how FileMaker Pro handles date, time, and number formats for a file that has system formats that are different from the current system formats.

### Example 1

Checks the system language before using system formats. Started by the OnFirstWindowOpen script trigger.

```
If [Get ( SystemLanguage ) = "Japanese"]
    Set Use System Formats [On]
End If
```

## Save a Copy as

### Purpose

Saves a copy of the current file.

### Format

Save a Copy as ["<filename>"; Automatically open; Create email; copy/compacted/clone/self-contained]

### Options

- **Specify output file** allows you to specify the name and location of the resulting copy. For more information, see Creating file paths. If you do not specify a file, FileMaker Pro saves a copy of the current file and displays the Save As dialog box so the user can specify copying options. You can choose to **Automatically open file** or **Create email with file as attachment** after saving.
- **copy** saves a complete copy of the current file.
- **compacted** saves a compacted copy of the current file.
- **clone** saves a copy of the file without any records.
- **self-contained** saves a copy of the file with all container content embedded in the file.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Use this script step to back up your file.

### Notes

- This script step is not supported in FileMaker Pro database files hosted by FileMaker Server.
- For files used in FileMaker Go, choose **self-contained**. Container objects will be embedded in the copy.

## Example 1

Saves a copy or clone of the current database.

```
Show Custom Dialog ["Save a copy or empty clone of the current file?"]
If [Get ( LastMessageChoice ) = 1]
    Save a Copy as [copy]
Else
    Save a Copy as [clone]
End If
```

## Recover File

### Purpose

Recovers a damaged FileMaker Pro file.

### Format

Recover File [No dialog; "<filename>"]

### Options

- **Perform without dialog** prevents a dialog box from displaying after the script step performs that shows how many bytes of data were recovered, the number of records and field values skipped, and the number of field definitions recovered.  
**Perform without dialog** applies only to default recovery operations. The Advanced Recovery Options dialog box is not supported.
- **Specify output file** specifies the file to be recovered. For more information, see Creating file paths. If you don't select a source file, the Open Damaged File dialog box displays at runtime.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

The Recover command makes an aggressive attempt to reopen a damaged file. It is intended for data recovery, not file repair. Do not use the Recover command as part of routine file maintenance.

FileMaker Pro attempts to recover as much of the information in a damaged file as possible, and then creates a new, recovered file. The original file is not deleted or replaced.

**Note** Before you begin, be sure you have enough disk space for the recovered file. If there isn't enough space, the recovered file won't be usable.

### Example 1

Opens Invoices Backup, then attempts to recover the database if it is damaged.

```
Open File ["Invoices Backup"]
If [Get ( LastError ) = 807]
    Recover File [No dialog; "Invoices Backup.fmp12"]
End If
```

## Print Setup

### Purpose

Sets print options, such as paper size and orientation, which can be stored with this script step.

### Format

Print Setup [Restore; No dialog]

### Options

- **Perform without dialog** prevents the Print Setup dialog box from displaying when the script step executes. If you select **Perform without dialog**, the output from this script step will be sent to the last specified printer and not the one specified in the Edit Script dialog box.
- **Specify page setup** allows you to choose page setup options that are stored with the script step.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

You can also have this script step performed with a dialog box so the user can specify print options. You can use multiple Print Setup script steps within a script.

### Example 1

Goes to the Print Invoices layout, sorts the records, changes the print settings, and prints.

```
Go to Layout ["Print Invoices"]
Sort Records [Restore; No dialog]
Print Setup [Restore; No dialog]
Print [ ]
```

## Print

### Purpose

Prints information that is in a file.

### Format

Print [Restore: "<printer>"; No dialog]

### Options

- **Perform without dialog** prevents the Print dialog box from displaying when the script step executes.
- **Specify print options** allows you to specify an output destination. When the script executes, the output from this script step is sent to the printer or fax you specified.

OS X: As an alternative to specifying a printer or fax, you can click **PDF** in the Print dialog box, then choose a PDF option from the list or choose **Edit menu** to define a custom PDF output format or destination.

If you do not specify an output destination before saving the script or if the specified printer cannot be found when the script executes, the output from the script step is sent to the user's default printer.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Multiple print steps can be added to a script. You can store print options with this script step, or allow the user to enter printing criteria when the step executes.

If the print job needs special page setup options to print correctly, add a [Print Setup script step](#) before the Print step.

### Notes

- When you use more than one Print script step in a script, the saved printer name applies to only the containing Print script step.
- A printer name specified in a Print Setup script step is not inherited by any Print script step in a script.

## Example 1

Goes to the Print Invoices layout, sorts the records, and prints.

```
Go to Layout ["Print Invoices"]  
Sort Records [Restore; No dialog]  
Print [Restore: Printer; No dialog]
```

## Accounts script steps

Accounts [script steps](#) allow you to create and manage user [accounts](#). With Accounts script steps, you can:

- add accounts
- delete accounts
- reset account passwords
- change passwords
- enable accounts
- log in to a file using a different account and password

### Notes

- Accounts created using script steps cannot be granted [full access](#) privileges (only accounts created manually).
- Users must be assigned the Full Access privilege set to execute account script steps. To enable users with less than full access privileges to perform account script steps, right-click the current script in the script pane and choose **Grant Full Access Privileges**. For more information on access privileges and script steps, see [Editing scripts privileges](#).



## Add Account

### Purpose

Adds a new account name, password, and privilege set.

### Format

Add Account [Account Name: <account name>; Password: <password>;  
Privilege Set: "<privilege set>"; Expire password]

### Options

- **Account Name** is the name for the new [account](#).
- **Password** is the password for the new account.
- **Privilege Set** lets you assign a predefined privilege set for this user or create a new privilege set.

The [Full Access](#) privilege set cannot be assigned via this script step. Accounts with Full Access privilege sets must be created manually.

- **User must change password on next login** forces users to change their password the next time they log in to the database.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 7.0

### Description

The account name and password can be literals stored with this script step, or generated at runtime based on calculations that you set up.

### Notes

- Account names must be unique.
- You must be assigned the Full Access privilege set to perform this script step. To enable users with less than full access privileges to perform this script step, right-click the current script in the script pane and choose **Grant Full Access Privileges**.

### Example 1

Adds a new user account with data entry only privileges. Requires you to change the password the next time you log in to the account.

```
Add Account [Account Name: "User"; Password: "1234"; Privilege Set: "[Data Entry Only]"; Expire password]
```

### Example 2

Adds a new account with read-only privileges using the name and password in the custom dialog.

```
Show Custom Dialog ["Do you want to add a new account?"; Accounts::Name; Accounts::Password]
If [Get ( LastMessageChoice ) = 1]
    Add Account [Account Name: Accounts::Name; Password: Accounts::Password; Privilege Set: "[Read-Only Access]"]
End If
```

### Example 3

Adds a new data entry only account unless the current user has read-only privileges. Uses the current user's name for the new account name.

```
If [Get ( AccountPrivilegeSetName ) ≠ "[Read-Only Access]"]
    Add Account [Account Name: Get ( UserName ); Password: "1234"; Privilege Set: "[Data Entry Only]"; Expire password]
Else
    Show Custom Dialog ["You do not have enough privileges to add an account."]
End If
```

## Delete Account

### Purpose

Deletes the specified account.

### Format

Delete Account [Account Name: <account name>]

### Options

- **Account Name** allows you to specify the name of the existing FileMaker Pro [account](#) to be deleted.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 7.0

### Description

- You must specify an existing account.
- You must be assigned the [Full Access](#) privilege set to perform this script step. To enable users with less than full access privileges to perform this script step, right-click the current script in the script pane and choose **Grant Full Access Privileges**.
- You cannot use this script step to delete an account that has full access privileges.
- This script step deletes an account without displaying a dialog box.

### Example 1

Deletes the Sales account.

Delete Account [Account Name: "Sales"]

## Example 2

Deletes the current account if it has full access privileges.

```
If [Get ( AccountPrivilegeSetName ) = "[Full Access]"]
    Delete Account [Account Name: Get ( AccountName )]
    Re-Login [ ]
Else
    Show Custom Dialog ["You do not have enough privileges to delete an
account."]
End If
```

## Reset Account Password

### Purpose

Resets the password of the existing FileMaker Pro account you specify.

### Format

Reset Account Password [Account Name: <account name>;  
New Password: <password>; Expire password]

### Options

- **Account Name** allows you to specify the name of the existing FileMaker Pro [account](#) with the password to be reset.
- **New Password** is the new password for this account.
- **User must change password on next login** forces users to change their password the next time they log in to the database.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 7.0

### Description

Use multiple occurrences of this script step to reset multiple accounts in a single script.

### Notes

- You must be assigned the [Full Access](#) privilege set to perform this script step. To enable users with less than full access privileges to perform this script step, right-click the current script in the script pane and choose **Grant Full Access Privileges**.
- This script step resets the account password without displaying a dialog box.

### Example 1

Changes the password of the Sales account. Requires you to change the password the next time you log in to the account.

```
Reset Account Password [Account Name: "Sales"; New Password: "1234";  
Expire password]
```

## Example 2

Asks if you want to change the current account's password. Resets the password with the contents of the Password field.

```
Show Custom Dialog ["Reset the current account password?";  
Accounts::Password]  
If [Get ( LastMessageChoice ) = 1]  
    Reset Account Password [Account Name: Get ( AccountName ); New  
Password: Accounts::Password]  
End If
```

## Change Password

### Purpose

Changes the password for the current account.

### Format

Change Password [Old Password: <old password>;  
New Password: <new password>; No dialog]

### Options

- **Old Password** is the old password for the current [account](#).
- **New Password** is the new password for the current account.
- **Perform without dialog** prevents the Change Password dialog box from displaying when the script step executes. When this option is selected, FileMaker Pro uses the literal password information stored with the script step, or generates a new password based on a calculation.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Yes
Custom Web Publishing	Partial
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 7.0

### Description

This script step displays the Change Password dialog box, unless **Perform without dialog** is selected. Change Password allows you to change your password but not your [access privileges](#).

### Notes

- Users must have password change privileges to use this script step to change their passwords. To enable users who do not have password change privileges to run this script step, right-click the current script in the scripts pane and choose **Grant Full Access Privileges**.
- Unless the [Set Error Capture script step](#) has enabled error capture, users get five attempts to change their password.
- If Set Error Capture is on, users get a single attempt to enter their old and new password.

## Example 1

Opens the Change Password dialog box every ten times the database is opened to encourage the user to change his or her password frequently. Started by the OnFirstWindowOpen script trigger.

```
Set Field [Accounts::Open Count; Accounts::Open Count + 1]
If [Accounts::Open Count = 10]
    Set Field [Accounts::Open Count; 0]
    Change Password [ ]
End If
```



## Enable Account

### Purpose

Enables or disables a specified account.

### Format

Enable Account [Account Name: <account name>; Activate/Deactivate]

### Options

- **Account Name** allows you to specify the name of the [account](#) to be activated or deactivated.
- **Activate account** enables the specified account.
- **Deactivate account** disables the specified account.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 7.0

### Description

- You must specify an existing account.
- You must be assigned the [Full Access](#) privilege set to perform this script step. To enable users with less than full access privileges to perform this script step, right-click the current script in the scripts pane and choose **Grant Full Access Privileges**.
- You cannot use this script step to deactivate an account with full access privileges.

### Example 1

Displays the contents of the Name field and prompts the user to activate an account with that name.

```
Show Custom Dialog ["Activate the " & Accounts::Name & " account?"]
If [Get ( LastMessageChoice ) = 1]
    Enable Account [Account Name: Accounts::Name; Activate]
End if
```

## Example 2

Deactivates the current account and prompts the user to log in to a different account.

```
Show Custom Dialog ["Deactivate the " & Get ( AccountName ) & " account?"]
If [Get ( LastMessageChoice ) = 1]
    Enable Account [Account Name: Get ( AccountName ); Deactivate]
    Re-Login [ ]
End if
```

## Re-Login

### Purpose

Allows logging in to the file using a different account and password without having to close and reopen the file.

### Format

Re-Login [Account Name: <account name>; Password: <password>; No dialog]

### Options

- **Perform without dialog** prevents the Open <filename> dialog box from displaying when the script step executes. This dialog box requires the user to manually enter an account and password (or edit information already displayed in the dialog box) to open a database. When **Perform without dialog** is selected, FileMaker Pro uses the [account](#) and password information that is stored with the script step, or generates information from calculations when the step executes.
- **Account Name** allows you to specify the name of the account to be [authenticated](#).
- **Password** allows you to specify the password for this account.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Yes
Custom Web Publishing	Partial
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 7.0

### Description

Privileges assigned to the new account take effect immediately, including access to tables, records, layouts, scripts, and value lists.

### Notes

- You do not need full [access privileges](#) to perform this script step. Users with any level of access can use this script step to re-login to the database.
- Users get five attempts to enter their account and password, unless the [Set Error Capture script step](#) is enabled.

- If the Set Error Capture script step is enabled, users get a single attempt to enter their account and password.
- **Perform without dialog** must be selected for this script to work in a FileMaker Server scheduled script.

### Example 1

Prompts the current user to re-login after deleting the specified account.

**Note** Because of the Delete Account step, users must have full access privileges to run this script.

```
Delete Account [Account Name: "User"]  
Re-Login [ ]
```

## Spelling script steps

With spelling [script steps](#) you can:

- check the spelling in a selection of text
- check the spelling of a record
- check the spelling of an entire [found set](#)
- correct a word
- set spelling options for a file
- select a dictionary
- edit the user dictionary

## Check Selection

### Purpose

Uses the spelling checker to check the selected text.

### Format

Check Selection [Select; <table::field>]

### Options

- **Select entire contents** checks all the text in the active field. If you do not use **Select entire contents**, you must select some text before this script step executes.
- **Go to target field** allows you to specify a field to be checked.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Displays the Spelling dialog box unless the field is empty.

### Example 1

Checks spelling in the Notes field in the current record.

```
Check Selection [Select; Products::Notes]
```

## Check Record

### Purpose

Uses the spelling checker to check the contents of every field in the current record.

### Format

Check Record

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Example 1

Checks spelling in all fields in the current record. Started by the OnRecordCommit script trigger.

Check Record

## Check Found Set

### Purpose

Uses the spelling checker to check the contents of every field in the records being browsed.

### Format

Check Found Set

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Example 1

Checks spelling in all fields in all records in the found set.

```
Perform Find [Restore]
Check Found Set
```



## Correct Word

### Purpose

Opens the Spelling dialog box so the user can correct a word FileMaker Pro has identified as misspelled.

### Format

Correct Word

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step is the same as choosing **Edit** menu > **Spelling** > **Correct Word**.

Use this script step to open the Spelling dialog box for users if you have restricted their access to FileMaker Pro menus.

### Notes

- **Check spelling as you type** must be selected (**File** menu > **File Options** > **Spelling** tab.)
- This script step can only correct a word after FileMaker Pro identifies it as being misspelled.

### Example 1

Displays a custom dialog that asks if the user wants to open the Spelling dialog box.

```
Show Custom Dialog ["Open the Spelling dialog box to correct spelling?"]
If [Get ( LastMessageChoice ) = 1]
    Correct Word
End If
```

## Spelling Options

### Purpose

Opens the File Options dialog box to the Spelling tab.

### Format

Spelling Options

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step is the same as choosing **File** menu > **File Options** > **Spelling** tab.

Use this script step to open the File Options dialog box for users if you have restricted their access to FileMaker Pro menus.

### Example 1

Displays a custom dialog that asks if the user wants to turn on the **Beep on questionable spellings** option.

```
Show Custom Dialog ["Would you like to check spelling as you type?"]
If [Get ( LastMessageChoice ) = 1]
    Spelling Options
End If
```

## Select Dictionaries

### Purpose

Opens the Select Dictionaries dialog box.

### Format

Select Dictionaries

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step is the same as choosing **Edit** menu > **Spelling** > **Select Dictionaries**.

Use this script step to open the Select Dictionaries dialog box for users if you have restricted their access to FileMaker Pro menus.

### Example 1

Opens the Select Dictionaries dialog box and checks spelling in all fields in the current record.

```
Select Dictionaries
Check Record
```

## Edit User Dictionary

### Purpose

Opens the User Dictionary dialog box.

### Format

Edit User Dictionary

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step is the same as choosing **Edit** menu > **Spelling** > **Edit User Dictionary**.

Use this script step to open the Edit User Dictionary dialog box for users if you have restricted their access to FileMaker Pro menus.

### Example 1

Displays a custom dialog that asks if the user wants to open the Edit User Dictionary dialog box.

```
Show Custom Dialog ["Would you like to edit the dictionary used for spell
checking?"]
If [Get ( LastMessageChoice ) = 1]
    Edit User Dictionary
End If
```

## Open Menu Item script steps

Open Menu Item [script steps](#) open specific FileMaker Pro dialog boxes as if you had chosen the command from a menu. You could use one of these script steps to open a dialog box for users if you have restricted their access to FileMaker Pro menus with [access privileges](#). With these script steps you can:

- open the Edit Saved Finds dialog box
- open the Preferences dialog box
- open the File Options dialog box
- open the Manage Database dialog box
- open the Manage External Data Sources dialog box
- open the Manage Layouts dialog box
- open the Script Workspace window
- open the Manage Themes dialog box
- open the Manage Value Lists dialog box
- open the Find/Replace dialog box
- open Help
- open the Open Remote File dialog box
- open the FileMaker Network Settings dialog box
- open the Upload to FileMaker Server dialog box

## Open Edit Saved Finds

### Purpose

Opens the Edit Saved Finds dialog box.

### Format

Open Edit Saved Finds

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 10.0

### Description

Use this script step to open the Edit Saved Finds dialog box for users if you have restricted their access to FileMaker Pro menus.

### Example 1

Displays a custom dialog that asks if the user wants to open the Edit Saved Finds dialog box.

```
Show Custom Dialog ["Do you want to change a saved find?"]
If [Get ( LastMessageChoice ) = 1]
    Open Edit Saved Finds
End If
```

## Open Preferences

### Purpose

Opens the Preferences dialog box to the General tab.

### Format

Open Preferences

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step is the same as choosing **Edit** menu > **Preferences** (Windows) or **FileMaker Pro** menu > **Preferences** (OS X).

Use this script step to open the Preferences dialog box for users if you have restricted their access to FileMaker Pro menus.

### Example 1

Displays a custom dialog that asks if the user wants to open the Preferences dialog box.

```
Show Custom Dialog ["Do you want to open the Preferences dialog box?"]
If [Get ( LastMessageChoice ) = 1]
    Open Preferences
End If
```

## Open File Options

### Purpose

Opens the File Options dialog box to the Open tab.

### Format

Open File Options

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Partial

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step is the same as choosing **File** menu > **File Options**.

Use this script step to open the File Options dialog box for users if you have restricted their access to FileMaker Pro menus.

**Note** Only the Spelling tab of the File Options menu is available in runtime solutions.

### Example 1

Displays a custom dialog that asks if the user wants to open the File Options dialog box.

```
Show Custom Dialog ["Do you want to open the File Options dialog box?"]
If [Get ( LastMessageChoice ) = 1]
    Open File Options
End If
```



## Open Manage Containers

### Purpose

Opens the Manage Containers dialog box.

### Format

Open Manage Containers

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

### Originated in

FileMaker Pro 12.0

### Description

This script step opens the Manage Containers dialog box, where the user can manage thumbnail settings and external locations for container content. This script step is the same as choosing **File** menu > **Manage** > **Containers**.

### Notes

- You must be assigned the [Full Access](#) privilege set to perform this script step. To enable users with less than full access privileges to perform this script step, right-click the current script in the scripts pane and choose **Grant Full Access Privileges**.
- See Sharing files on a network for information about making [schema](#) changes to shared databases.

### Example 1

Displays a custom dialog that asks if the user wants to edit settings for thumbnails, and opens the Manage Containers dialog box.

```
Show Custom Dialog ["Do you want to change settings for thumbnail images
in container fields?"]
If [Get ( LastMessageChoice ) = 1]
    Open Manage Containers
End If
```

## Open Manage Database

### Purpose

Opens the Manage Database dialog box.

### Format

Open Manage Database

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step opens the Manage Database dialog box, where the user can create or edit tables, fields, and relationships. This script step is the same as choosing **File** menu > **Manage** > **Database**.

### Notes

- You must be assigned the [Full Access](#) privilege set to perform this script step. To enable users with less than full access privileges to perform this script step, right-click the current script in the scripts pane and choose **Grant Full Access Privileges**.
- See Sharing files on a network for information about making [schema](#) changes to shared databases.

### Example 1

Displays a custom dialog that asks if the user wants to manage the database's tables and fields, and opens the Manage Database dialog box.

```
Show Custom Dialog ["Do you want to manage database tables and fields?"]
If [Get ( LastMessageChoice ) = 1]
    Open Manage Database
End If
```

## Open Manage Data Sources

### Purpose

Opens the Manage External Data Sources dialog box.

### Format

Open Manage Data Sources

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step opens the Manage External Data Sources dialog box, where the user can create, edit, or delete external FileMaker or ODBC data sources. This script step is the same as choosing **File** menu > **Manage** > **External Data Sources**.

### Notes

- You must be assigned the [Full Access](#) privilege set to perform this script step. To enable users with less than full access privileges to perform this script step, right-click the current script in the scripts pane and choose **Grant Full Access Privileges**.
- See Sharing files on a network for information about making schema changes to shared databases.

### Example 1

Displays a custom dialog that asks if the user wants to manage the database's [data sources](#), and opens the Manage External Data Sources dialog box.

```
Show Custom Dialog ["Do you want to manage the database's external data sources?"]
If [Get ( LastMessageChoice ) = 1]
    Open Manage Data Sources
End If
```

## Open Manage Layouts

### Purpose

Opens the Manage Layouts dialog box.

### Format

Open Manage Layouts

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

### Originated in

FileMaker Pro 11.0

### Description

This script step is the same as choosing **File** menu > **Manage** > **Layouts**, or choosing **Manage Layouts** from the [Layout pop-up menu](#).

### Example 1

Displays a custom dialog that asks if the user wants to manage the database's layouts, and opens the Manage Layouts dialog box.

```
Show Custom Dialog ["Do you want to manage database layouts?"]
If [Get ( LastMessageChoice ) = 1]
    Open Manage Layouts
End If
```

## Open Script Workspace

### Purpose

Opens the Script Workspace window.

### Format

Open Script Workspace

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step is the same as choosing **Scripts** menu > **Script Workspace**, or **File** menu > **Manage** > **Scripts**.

**Note** Once an Open Script Workspace step is performed, FileMaker Pro halts execution of the current script. This prevents unexpected conditions from occurring if the currently running script is edited.

### Example 1

Displays a custom dialog that asks if the user wants to manage the database's scripts, and opens the Script Workspace window.

```
Show Custom Dialog ["Do you want to manage database scripts?"]
If [Get ( LastMessageChoice ) = 1]
    Open Script Workspace
End If
```

## Open Manage Themes

### Purpose

Opens the Manage Themes dialog box.

### Format

Open Manage Themes

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

### Originated in

FileMaker Pro 13.0

### Description

This script step is the same as choosing **File** menu > **Manage** > **Themes**.

Use this script step to open the Manage Themes dialog box for users if you have restricted their access to FileMaker Pro menus.

### Notes

- Users must have full layout access privileges to open the Manage Themes dialog box. For more information, see Editing record access privileges and Editing layouts privileges.

### Example 1

Displays a custom dialog that asks if the user wants to manage the database's [layout themes](#), and opens the Manage Themes dialog box.

```
Show Custom Dialog ["Do you want to manage database themes?"]
If [Get ( LastMessageChoice ) = 1]
    Open Manage Themes
End If
```

## Open Manage Value Lists

### Purpose

Opens the Manage Value Lists dialog box.

### Format

Open Manage Value Lists

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step is the same as choosing **File** menu > **Manage** > **Value Lists**.

Use this script step to open the Manage Value Lists dialog box for users if you have restricted their access to FileMaker Pro menus.

### Notes

- You must be assigned the [Full Access](#) privilege set to perform this script step. To enable users with less than full access privileges to perform this script step, right-click the current script in the scripts pane and choose **Grant Full Access Privileges**.
- See Sharing files on a network for information about making [schema](#) changes to shared databases.

### Example 1

Displays a custom dialog that asks if the user wants to manage the database's [value lists](#), and opens the Manage Value Lists dialog box.

```
Show Custom Dialog ["Do you want to manage database value lists?"]
If [Get ( LastMessageChoice ) = 1]
    Open Manage Value Lists
End If
```

## Open Find/Replace

### Purpose

Opens the Find/Replace dialog box.

### Format

Open Find/Replace

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 7.0

### Description

This script step is the same as choosing **Edit** menu > **Find/Replace** > **Find/Replace**.

Use this script step to open the dialog box for users if you have restricted their access to FileMaker Pro menus.

**Note** If you want to perform a find/replace without opening a dialog box, use the [Perform Find/Replace script step](#) with **Perform without dialog** selected.

### Example 1

Displays a custom dialog that asks if the user wants to open the Find/Replace dialog box.

```
Show Custom Dialog ["Open the Find/Replace dialog box?"]
If [Get ( LastMessageChoice ) = 1]
    Open Find/Replace
End If
```



## Open Help

### Purpose

Opens FileMaker Pro Help to the Help contents screen.

### Format

Open Help

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	Yes
Runtime solution	No

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step is the same as displaying Help in the FileMaker product.

### Example 1

Displays a custom dialog that asks if the user wants to see the onscreen Help.

```
Show Custom Dialog ["Do you want to open onscreen Help?"]
If [Get ( LastMessageChoice ) = 1]
    Open Help
End If
```

## Open Remote

### Purpose

Opens the Open Remote dialog box.

### Format

Open Remote

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

### Originated in

FileMaker Pro 6.0 or earlier

### Description

The Open Remote dialog box allows you to select and open a shared FileMaker Pro file over a network connection.

Use this script step to open the dialog box for users if you have restricted their access to FileMaker Pro menus.

### Example 1

Displays a custom dialog box that asks if the user wants to open a shared database, and opens the Open Remote dialog box.

```
Show Custom Dialog ["Do you want to open a shared database?"]
If [Get ( LastMessageChoice ) = 1]
    Open Remote
End If
```

## Open Sharing

### Purpose

Opens the FileMaker Network Settings dialog box.

### Format

Open Sharing

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step is the same as choosing **File** menu > **Sharing** > **Share with FileMaker Clients**.

Use this script step to open the FileMaker Network Settings dialog box for users if you have restricted their access to FileMaker Pro menus.

**Note** Users must be assigned a [privilege set](#) that permits changes to sharing settings to use this script step. To enable users who cannot change sharing settings to run this script step, right-click the current script in the scripts pane and choose **Grant Full Access Privileges**.

### Example 1

Displays a custom dialog that asks if the user wants to share the current database, and opens the FileMaker Network Settings dialog box.

```
Show Custom Dialog ["Do you want to share this database?"]
If [Get ( LastMessageChoice ) = 1]
    Open Sharing
End If
```

## Upload To FileMaker Server

### Purpose

Opens the Upload to FileMaker Server dialog box.

### Format

Upload to FileMaker Server

### Options

None

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

### Originated in

FileMaker Pro 13.0

### Description

This script step is the same as choosing **File** menu > **Sharing** > **Upload to FileMaker Server**.

Use this script step to open the Upload to FileMaker Server dialog box for users if you have restricted their access to FileMaker Pro menus.

### Example 1

Displays a custom dialog that asks if the user wants to upload a database to FileMaker Server, and opens the Upload to FileMaker Server dialog box.

```
Show Custom Dialog ["Do you want to upload a database to
FileMaker Server?"]
If [Get ( LastMessageChoice ) = 1]
    Upload to FileMaker Server
End If
```

## Miscellaneous script steps

Miscellaneous [script steps](#) allow you to script miscellaneous actions, like:

- displaying a dialog box that presents the user with different options
- showing or hiding the toolbars
- playing the system alert sound
- Installing a plug-in file in a container field
- launching a web browser and displaying a specified URL
- sending internet email
- sending a DDE command (Windows) or an event to another application
- exiting the application
- refreshing an object or window

**Tip** Use the Comment script step to annotate your scripts so your colleagues can understand them.

## Get Directory

### Purpose

Sets a variable to the fully qualified path of a specified folder.

### Format

Get Directory [Allow Folder Creation; <variable>; <dialog title>; <default location>]

### Options

- **Allow folder creation** lets users create new folders while they browse the file system.
- **Variable** sets a local or global variable to the path of the selected folder. See the [Set Variable script step](#).
- **Dialog Title** lets you specify a custom name for the folder selection dialog box.
- **Default Location** lets you specify the path that the folder selection dialog box displays when it opens.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 14.0

### Description

This script step prompts the user to select a folder, then it sets a variable to the fully qualified path of the selected folder.

In Windows, the path format is /Drive:/<selected folder>/.

In OS X, the path format is /DriveName/<selected folder>/.

### Example 1

Opens a folder selection dialog box that displays the desktop, prompts the user to select the Pictures folder, then sets Products::Pictures Folder to the path of the selected folder.

```
Get Directory [$DIRECTORY; "Select the Pictures folder";
Get(DesktopPath) ]
Set Field [Products::Pictures Folder; $DIRECTORY]
```

## Example 2

Performs a find, prompts the user to select a folder to export to, then loops through records to export files that are in the Products::Picture field.

```
Perform Find [Restore]
Get Directory [Allow Folder Creation; $DIRECTORY; "Export to Folder"]
Loop
    Set Variable [$PATH; Value:$DIRECTORY & Products::Picture]
    Export Field Contents [Products::Picture; $PATH]
    Go to Record/Request/Page [Next; Exit after last]
End Loop
```

## Show Custom Dialog

### Purpose

Displays a custom message dialog box, with custom text and labels.

### Format

Show Custom Dialog [*<title>*; *<message text>*; Table1::input field 1;...]

### Options

The “Show Custom Dialog” Options dialog box allows you to set the dialog box title, message text, and buttons, and specify up to three fields to use for input or display.

#### General options

- **Title** specifies the title of the custom dialog box. You can enter literal text or click **Specify** to create the dialog box title from a calculation.
- **Message** specifies the message of the dialog box. You can enter literal text or click **Specify** to create the message text from a calculation.
- **Button Labels** specifies how many buttons (up to three) to display in the custom dialog box and labels for these buttons. If you leave a button label blank, the button does not appear in the custom dialog box. If you leave all button titles blank, an OK button displays in the lower-right corner of the custom dialog box. To create a button label based on a calculation, click **Specify** and then specify the calculation.
- **Commit Data** checkboxes pass input from the dialog box to the database according to the action of each button. If no fields are active, then the data is committed; if a field is active, then the data is committed when the record is committed.

#### Input Field options

- **Show input field <n>** activates an input field.
- **Specify** selects the field for input. Each input area maps to one field.
- **Use password character (\*)** masks text as it is entered, or as it is displayed from the database. This option obscures data being input into the custom dialog box or being displayed, but does not alter the actual data as it is stored in the database.
- **Label** specifies a field label (the text that will identify this input to the user.) You can enter literal text or create the label from a calculation.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	Yes
Runtime solution	Yes



## Originated in

FileMaker Pro 6.0 or earlier

## Description

The custom message dialog box can take user input for up to three fields in the database, and display data from up to three fields in the database. The script pauses as long as the custom dialog box stays on the screen. Fields used for input can be of type text, number, date, time, timestamp, or container. Your custom dialog box can also have up to three buttons, with custom button titles.

Use the `Get(LastMessageChoice)` function to determine which button the user presses.

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

## Notes

- If values entered into input fields don't match the field type, a validation error message displays. The user must resolve validation errors before the dialog box can be closed. See [Defining field validation](#) for more information.
- The fields you specify don't need to appear on the current layout. Show Custom Dialog input fields are independent of layouts, similar to the Set Field script step.
- Data can't be inserted into calculation or summary fields.
- Show Custom Dialog ignores any field entry options. See [Allowing or preventing entry into fields](#) for more information.
- Data entry via the Show Custom Dialog script step is limited by any [access privileges](#) criteria that may be in place. (To enable the script for all users, right-click the current script in the scripts pane and choose **Grant Full Access Privileges**.)
- (Windows) You can create a keyboard shortcut for a custom dialog box button by placing an ampersand before the shortcut key letter in the button label. For example, to create a keyboard shortcut 'D' (Alt+D) for a button labeled 'Done', type the label '&Done'.
- For databases created with pre-12 versions of FileMaker Pro that are opened with FileMaker Pro 14, the **Commit Data** checkbox for **Default Button** is selected when you open the Show Custom Dialog dialog box.
- Before you change the data commitment status of a button for a database that's already in use, consider the behavior that users currently expect of the button and how changing its behavior could affect the validity of data committed (or not committed) to the database.
- To develop more-complex custom dialog boxes, you can use the [New Window script step](#).

## Example 1

Performs a find. If no records were found, displays a custom dialog.

```
Perform Find [Restore]
If [Get (FoundCount) = 0]
    Show Custom Dialog ["No records were found."]
End If
```

## Example 2

Creates a new record, prompts the user to enter information, then goes to the Customer Details layout. The first button is Cancel so that users don't inadvertently create a record by pressing Return or Enter in the custom dialog.

```
Freeze Window
New Record/Request
Show Custom Dialog ["New Customer"; "Enter information into the fields
below:"; Customers::Company; Customers::Name; Customers::City]
If [Get ( LastMessageChoice ) = 1]
    Delete Record/Request [No dialog]
Else
    Go to Layout ["Customer Details"]
End If
```

## Example 3

Enters Find mode, prompts the user for find criteria, and performs the find. If the find returns no records, asks if the user wants to find again, and either performs the script again or halts all scripts.

### Script: Find

```
Enter Find Mode [ ]
Show Custom Dialog ["Find customers by ID, name, or city.";
Customers::ID; Customers::Name; Customers::City]
If [Get ( LastMessageChoice ) = 1]
    Perform Find [ ]
    If [Get ( FoundCount ) = 0]
        Show Custom Dialog ["No records were found. Find again?"]
        If [Get ( LastMessageChoice ) = 1]
            #Calls this script as a sub-script
            Perform Script ["Find"]
        Else
            Show All Records
            #Halts all scripts and sub-scripts
            Halt Script
        End If
    End If
Else If [Get ( LastMessageChoice ) = 2]
    Enter Browse Mode [ ]
End If
```

## Allow Formatting Bar

### Purpose

Enables or disables display of the formatting bar.

### Format

Allow Formatting Bar [<On/Off>]

### Options

- **On** indicates that the [formatting bar](#), the **View** menu > **Formatting Bar** menu item, and the **Formatting Bar** button in the [layout bar](#) are enabled.
- **Off** hides the formatting bar, disables the **View** menu > **Formatting Bar** menu item, and disables the **Formatting Bar** button in the layout bar.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Partial

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step works in all modes except [Layout mode](#).

Use this script step to disable the formatting bar and menu items related to the formatting bar. This script step only affects the active window of the file from which the script step is called.

In runtime solutions created with the FileMaker Pro Advanced software, the formatting bar is hidden in Kiosk mode. Allow Formatting Bar has no effect in Kiosk mode.

### Example 1

Goes to the Comment field on the Invoice Details layout and shows the formatting bar.

```
Go to Layout ["Invoice Details"]
Go to Field [Invoices::Comments]
Allow Formatting Bar [On]
```

## Refresh Object

### Purpose

Updates the contents, conditional formatting, and visibility state of the specified object.

### Format

Refresh Object [Object Name: *<object name>*; Repetition: *<value or formula>*]

### Options

- **Object name** is a named object on the current layout.
- **Repetition** (optional) lets you choose which field repetition to refresh. Defaults to 1. This option is ignored if the object is not a field.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 13.0

### Description

Refresh Object does not support repetition numbers when updating the visibility state of an object with a hidden condition.

If the specified object is in a portal, Refresh Object updates the object in every visible portal row.

If the repetition calculation returns zero, or the expression does not exist, all repetitions are refreshed.

**Note** To update all objects in the current window, use the [Refresh Window script step](#).

### Example 1

Allows the user to log in to a different account and updates the visibility state of the Confidential object. The Confidential object hides when the user is not logged in to the Admin account.

```
Re-Login [ ]
Refresh Object ["Confidential"]
```

## Beep

### Purpose

Plays a system beep sound.

### Format

Beep

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Example 1

Performs a find. If no records were found, beeps.

```
Set Error Capture [On]
Perform Find [Restore]
If [Get ( FoundCount ) = 0]
    Beep
    Show Custom Dialog ["No records were found."]
End If
```

## Speak (OS X)

### Purpose

Produces speech from text.

### Format

Speak [*<text to be spoken>*]

### Options

- Type the text to be spoken directly in the text entry area, or click **Specify** to create your spoken text from a calculation.
- **Use Voice** specifies a voice from the various voices available on your computer.
- **Wait for speech completion before continuing** tells FileMaker Pro to wait until the speech is completed before continuing with the next script step.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

You can enter a literal text string or use a calculation to create the text to be spoken. You can also specify which voice synthesizer to use and whether or not to wait for the speech to be completed, before continuing with the next script step.

If the database is opened on a non-speaking computer, the script can still be edited, but only the default voice synthesizer is available. Speak script steps are not executed when the script is run on a non-speaking computer.

### Example 1

Tells the user to enter a company name if the Company field is empty. Can be started by the OnRecordCommit, OnLayoutExit, or OnWindowClose script triggers.

```
If [IsEmpty ( Contacts::Company )]
    Speak ["Enter a company name"]
End If
```

## Example 2

Speaks the contents of the Summary field in the current record.

```
Go to Layout ["Invoice Details"]  
Speak [Invoices::Summary]
```

## Dial Phone

### Purpose

Dials a phone from within a script.

### Format

Dial Phone [No dialog; <phone number>]

### Options

- **Perform without dialog** prevents the Dial Phone dialog box from displaying when the script step executes.
- **Phone Number** lets you enter a phone number to dial.
- **Specify** lets you create a calculation to generate the phone number.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

You can enter a phone number or specify a calculation to create a phone number. You can specify number, text, calculation, or [global](#) fields. Letters within the phone number are translated to numbers (except for *q* and *z*). You can also choose whether to use the current phone preferences based on your current location.

**Tip** To place an international call in FileMaker Go, filter the phone number for numerical digits and the "+" symbol.

---

**Important** The Dial Phone script step is not supported in OS X, but you can create scripts that include the Dial Phone script step to use in FileMaker Go.

---

### Example 1

Dials the phone number contained in the script.

```
Dial Phone ["5550987654"]
```



## Example 2

Dials the phone number contained in the Work Phone field in the current record.

```
Go to Layout ["Customer Details"]
If [not IsEmpty ( Customers::Work Phone )]
    Dial Phone [No dialog; Customers::Work Phone]
End If
```

## Example 3

Filters the contents of the Work Phone field for appropriate characters and dials the filtered number.

```
Go to Layout ["Customer Details"]
If [not IsEmpty ( Customers::Work Phone )]
    Dial Phone [No Dialog; Filter ( Customers::Work Phone ; "1234567890+"
    )]
End If
```

## Install Plug-In File

### Purpose

Installs or updates a plug-in file from a container field onto your computer.

### Format

Install Plug-In File[<table::field>]

### Options

<table::field> allows you to specify the container field with the [plug-in](#) that you want to install or update. If no field is specified, FileMaker Pro installs the plug-in in the current container field in the active table.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	No
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 12.0

### Description

You must insert the plug-in in a container field before you can install or update the plug-in. For more information, see [Insert File](#) or Installing plug-ins.

FileMaker Pro installs plug-ins in the following locations:

Operating system	Product	Plug-ins are installed in this folder
Windows	FileMaker Pro	C:\users\user_name\AppData\Local\FileMaker\FileMaker Pro\14.0\Extensions\
	FileMaker Pro Advanced	C:\users\user_name\AppData\Local\FileMaker\FileMaker Pro Advanced\14.0\Extensions\
OS X	FileMaker Pro	Macintosh HD/Users/user_name/Library/Application Support/FileMaker/FileMaker Pro/14.0/Extensions
	FileMaker Pro Advanced	Macintosh HD/Users/user_name/Library/Application Support/FileMaker/FileMaker Pro Advanced/14.0/Extensions

Only FileMaker plug-in files can be installed. If a non-plug-in file is located in the target or active container field, no action takes place when the script runs. In Windows, plug-ins have the extension .fmx (32-bit FileMaker Pro) or .fmx64 (64-bit FileMaker Pro). In OS X, the plug-ins have the extension .fmplugin.

Compressed plug-in files in .zip format or plug-in files in .tar format can't be installed.

You can use the Get(InstalledFMPlugins) function to identify the name, version, and enabled state of an installed plug-in. This function can help you determine whether the installed plug-in is newer or older than the plug-in required by the solution file. See Get(InstalledFMPlugins).

Plug-ins must be enabled in the plug-in preferences for FileMaker Pro to recognize them. If the Install Plug-In File script step installs a plug-in update but the plug-in is disabled in the plug-in preferences, FileMaker Pro installs the update but does not enable the plug-in. See Setting plug-in preferences.

For FileMaker Server-hosted files, the server administrator needs to allow the Install Plug-In File script step to update FileMaker Server plug-ins in the Server Admin Console. See FileMaker Server Help.

## Notes

- FileMaker Pro can only install plug-ins that match the FileMaker Pro application's architecture. For example, the 64-bit version of FileMaker Pro can only install 64-bit plug-ins. Use the Get(ApplicationArchitecture) function to determine the current application's architecture.
- The system administrator can use the personalization file during a volume license installation to disable plug-ins and prevent plug-in updates from installing in FileMaker Pro. For more information, see the FILEMAKER PRO NETWORK INSTALL SETUP GUIDE.

## Example 1

Installs the Video plug-in.

```
Show Custom Dialog ["Do you want to install the latest version of the
Video Plug-In?"]
If [Get ( LastMessageChoice ) = 1]
    Install Plug-In File[Plugins::Video]
End If
```

## Example 2

Detects the application architecture, then installs the appropriate version of a plug-in.

```
If [ Get ( ApplicationArchitecture ) = "i386"]
    Install Plug-In File [Plugins::32bit]
Else If ( Get ( ApplicationArchitecture ) = "x86_64"]
    Install Plug-In File [Plugins::64bit]
End If
```

## Install Menu Set

### Purpose

Changes the menu set based on conditions established in the script.

### Format

Install Menu Set [*menu set name*]; Use as file default]

### Options

- *menu set name* specifies the menu set to install.
- **Use As File Default** overrides the file's default menu set specified in the Manage Custom Menus dialog box with the menu set specified in this script step. Once you close the file, the default menu set reverts to the one specified in the Manage Custom Menus dialog box. Select the menu set that you want the script step to install from the list.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 8.0

### Example 1

Goes to the Invoice Details layout and installs the Invoices Menu Set if the Print Invoices Menu Set was installed.

```
Go to Layout ["Invoice Details"]
If [Get ( CustomMenuSetName ) = "Print Invoices Menu Set"]
    Install Menu Set ["Invoices Menu Set"]
End If
```

## Set Web Viewer

### Purpose

Controls the specified web viewer.

### Format

Set Web Viewer [Object Name: "<object name>"; Action: <action>]

### Options

- **Object Name** is the name of the web viewer to act upon. To assign an object name, select the web viewer, choose **View** menu > **Inspector** in [Layout mode](#). Click **Position**, then enter a name for the object.
- **Action** lets you choose one of the following:
  - **Reset** resets the named web viewer to its originally specified web address. This action also clears this web viewer's Back and Forward history.
  - **Reload** reloads the web page that the web viewer is displaying.
  - **Go Forward** goes forward one page, the same way a web browser does.
  - **Go Back** goes back one page, the same way a web browser does.
  - **Go to URL** lets you specify a new web address to load in the web viewer. The new web address is a calculation that you specify in the "Set Web Viewer - Go to URL" Options dialog box. In this script step, you cannot change whether the web viewer allows interaction, shows a progress bar or status messages, displays content in [Find mode](#), or automatically encodes a URL. You can set these options only when you add or change a web viewer in Layout mode.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	Partial
Runtime solution	Yes

### Originated in

FileMaker Pro 8.5

## Description

- This script step works only for named web viewer objects.

To specify the object name, either type the name in the Object Name box or click **Specify** and create a calculation.

If you choose the action **Go to URL**:

- You specify a web address in much the same way you do when you create a web viewer on a layout. For more information, see [Adding a web viewer and Defining a custom web address](#).
- You can send html data to a web viewer by including the data in a URL, using the following format:

```
data:[<mediatype>][;base64],<data>
```

Where the following syntax applies:

```
dataurl = "data:" [ mediatype ] [ ";base64" ] "," data
```

```
mediatype = [ type "/" subtype ] *( ";" parameter )
```

```
data = *urlchar
```

```
parameter = attribute "=" value
```

More information about the “data URL scheme” can be found on the web.

- FileMaker Pro supports only UTF-16 character encoding. Character data encoded using other methods will not display the target of the URL.
- FileMaker WebDirect does not support the **GoForward** and **GoBack** options.

### Example 1

Resets the web viewer named Product Website to its originally specified web address.

```
Set Web Viewer [Object Name: "Product Website"; Action: Reset]
```

### Example 2

Displays the FileMaker, Inc. homepage in the Product Website web viewer:

```
Set Web Viewer [Object Name: "Product Website"; URL: "http://
www.filemaker.com"]
```

### Example 3

Displays the URL entered in the Website field in the Product Website web viewer:

```
Set Web Viewer [Object Name: "Product Website"; URL: Products::Website]
```

### Example 4

Uses the data URL scheme to display a small icon in a web viewer named WV2.

```
Set Web Viewer [Object Name: "WV2"; URL: "data:image/
gif;base64,R0lGODlhFwAMAKEAAL+/v///
AAAAUwAAACH5BAEAAAAALAAAAAXAAwAAAI7hBGHapHcXJKPumizpigI+QliSH0XIjokWJ6oB
4+qt0Zmaqpjesxz7st1YD8ZEbhJajAuDgfsYTx60wIAOw=="]
```

## Open URL

### Purpose

Allows the user to open a URL.

### Format

Open URL [No dialog; <URL>]

### Options

- **Perform without dialog** prevents the “Open URL” Options dialog box from displaying when the script step executes.
- **URL** allows you to type the URL or to create your URL from a calculation.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	Partial
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Open URL supports http, https, ldap, ldaps, ftp, file, and mailto URL types, using the application registered with the operating system for each URL type. For example, if the URL starts with `http`, FileMaker Pro opens the user's web browser and processes the URL.

If the specified URL contains spaces or other special characters, replace the characters with the corresponding encoded values required for valid URLs. For example, replace "@" with "%40".

**Note** FileMaker WebDirect does not support the `file://` protocol.

### Example 1

Opens the user's web browser and displays the FileMaker, Inc. homepage.

```
Open URL [No dialog; "http://www.filemaker.com/"]
```

### Example 2

Opens Windows Notepad and opens the file `My_File.txt` on the root level of the user's hard disk.

```
Open URL [No dialog; "file://c:/My_File.txt"]
```

### Example 3

Launches the default email application, opens a new email message, and uses the value in the Email field to address the message.

```
Open URL [No dialog; "mailto:" & Customers::Email]
```

### Example 4

Opens a shared FileMaker Pro file running on another system.

```
Open URL [No dialog; "fmp://account:password@host/database"]  
#where "account" is the FileMaker Pro account name, "password" is the  
account password, "host" is a DNS entry, IPv4 address, or IPv6 address for  
the machine where the file resides, and "database" is the FileMaker Pro  
filename.
```

---

**Important** Account name and password information entered in an Open URL script step is visible to users with script editing access privileges, and is therefore not secure.

---



## Send Mail

### Purpose

Sends an email message through an email application or via SMTP.

### Format

```
Send Mail [Send via E-mail Client/Send via SMTP Server]; No dialog; To:
"<to>"; CC: "<CC>"; BCC: "<BCC>";
Subject: "<subject>"; Message: "<message>"; "<attachment>"]
```

### Options

- **Perform without dialog** instructs FileMaker Pro to put the composed email message in the email application's outbox, ready to be sent. If this option is not selected, the composed message is left open in the email application so it can be reviewed. In some email applications, the new message is left in the Drafts folder.
- **Specify** displays the Send Mail dialog box, where you can set options for your mail. Choose the method by which to send mail, **E-Mail Client** or **SMTP Server**. (If you choose **SMTP Server**, the SMTP Options dialog box appears. For information about setting SMTP options, see Entering or editing SMTP options.) Then choose to create **One email using data from the current file**, or create **Multiple emails (one for each record in found set)**.

**Note** If you choose **SMTP Server** and **Multiple emails (one for each record in the found set)** and FileMaker encounters an error while emailing one of the records, the remaining records will not be sent.

For each of the following options, you can enter text directly, or enter values from an address book (Windows), field, or calculation.

- (Windows) Select **Specify Email Addresses** to enter one or more email addresses. Separate each address with a semicolon or a carriage return character.
- Select **Specify Field Name** to specify a field that contains one or more email addresses.
- Select **Specify Calculation** to specify a calculation that generates one or more email addresses.
- If you use the **Specify Field Name** option to specify a value for the **To**, **CC**, or **BCC** entries, you can also select **Collect addresses across found set** to specify that all the values from this field in the current **found set** be used (to address a message to multiple recipients).

- **To** stores the address(es) of the recipient(s).
- **CC** stores the address(es) of the carbon copy recipient(s).
- **BCC** stores the address(es) of the blind carbon copy recipient(s)

**Note** If you specify multiple email addresses for the **To**, **CC**, or **BCC** options, separate each recipient's email address with a comma. Some email clients do not accept other separators, such as a semicolon.

- **Subject** indicates the title for the email message.
- **Message** indicates the text of the email message. You can type the message as text, use a field value, create a message from a calculation, or insert text from a file.
- Select **Attach File** to select a file to send as an attachment to the mail message. For more information, see Creating file paths.

## Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	Yes
Custom Web Publishing	Partial
FileMaker WebDirect	Partial
Runtime solution	Yes

## Originated in

FileMaker Pro 6.0 or earlier

## Description

Send Mail sends an intranet or Internet email message through an email application or via SMTP (Simple Mail Transfer Protocol).

## Notes

- Be aware that there are possible security issues with using https, httpspost, and ftps. FileMaker cannot perform a certificate check to verify that the server that you specify is the server that replies. If these security issues are not acceptable in your situation, then do not use this script step.
- Sending mail using an email application is not supported in Custom Web Publishing or in FileMaker Server scheduled scripts.
- FileMaker Server scheduled scripts support sending mail via SMTP. However, if you attach a file, that file needs to be in a folder that FileMaker Server is allowed to export to. For more information, see [Get/DocumentsPath](#) function.
- FileMaker WebDirect does not support the **Attach File** option. FileMaker WebDirect also does not support the **Perform without dialog** option when sending mail via an email client.
- To send email, you must have an internet connection. In addition, to send mail through an email application, you must have the following configurations.

Windows:

- A [Mail] section in the Win.ini file.
- Microsoft Exchange or Microsoft Outlook installed and configured properly.

OS X:

- OS X Mail or Microsoft Outlook installed to send email with FileMaker Pro.
- Internet system preferences configured for use with one of the supported mail applications.
- If you select **Multiple emails** and **Collect addresses across found set**, FileMaker Pro generates an email message for every record in the found set. Each message is addressed to everyone specified in the **TO**, **CC** and **BCC** boxes for every record in the found set.
- You can create a PDF or a Microsoft Excel file from your data to send as an attachment. For more information, see [Save Records As PDF](#) and [Save Records As Excel](#).

- The Send Mail script step does not control the font's appearance. Use the email client to make any changes to the font.
- FileMaker Pro sends email messages as plain text. To edit the message's contents and formatting, choose to send the message through an email client and do not select the **Perform without dialog** option. You can then edit the message within the email client before it is sent.

### Example 1

Goes to the Customers layout, performs a find, and sends a prewritten email to the address in the Email field in the current record without prompting the user.

```
Go to Layout ["Customers"]
Perform Find [Restore]
Send Mail [Send via E-mail Client; No dialog; To: Customers::Email;
Subject: Invoices::Summary; Message: "Dear Customer,¶¶Thank you for your
business."]
#The Collect addresses across found set option is not selected.
```

### Example 2

Saves the current record as a PDF, then emails the PDF to the address in the Email field in the current record.

```
Go to Layout ["Print Invoices"]
Save Records as PDF [Restore; No dialog; "Invoice.pdf"; Current record]
Send Mail [Send via E-mail Client; No dialog; To: Customers::Email;
Subject: Invoices::Summary; Message: "Dear Customer,¶¶Thank you for your
business. Your invoice is attached."; "Invoice.pdf"]
Go to Layout [original layout]
```

## AVPlayer Play

### Purpose

Plays audio, video, or images from a container field, layout object, or URL.

### Format

```
AVPlayer Play [Object/Field/URL; Object: <value or formula>; Field:
<table::field>; URL: <value or formula>;
Presentation: Start Full Screen/Full Screen Only/Start Embedded/Audio
Only;
Disable Interaction: Yes/No; Hide Controls: Yes/No; Position: <value or
formula>;
Start Offset: <value or formula>; End Offset: <value or formula>]
```

### Options

- One of the following options specifies the source for the media:
  - **Object** specifies the layout object to play the media from.
  - **Field** specifies the container field to play the media from. The field doesn't need to be present on the layout.
  - **URL** specifies the URL to play the media from. You can type the URL or create a URL from a calculation.

If no source is specified, the script step will use the active layout object, when possible.

- **Presentation** specifies how to display the media. If the source for the media is a field or a URL, the only options for Presentation are Full Screen Only and Audio Only.
  - **Start Full Screen** starts playing the media in full screen but allows changing the presentation to embedded.
  - **Full Screen Only** plays the media in full screen.
  - **Start Embedded** starts playing the media as embedded but allows changing the presentation to full screen.
  - **Audio Only** plays only the audio.
- **Disable Interaction** enables or disables user interaction with the playback. If this option is set to Yes, you cannot use the playback controls or gestures to interact with the media.
  - **Yes** disables user interaction with the playback.
  - **No** enables user interaction with the playback.
- **Hide Controls** shows or hides the playback controls while the media plays. If you hide the playback controls but enable interaction, you can use gestures instead of playback controls.
  - **Yes** hides the playback controls.
  - **No** shows the playback controls.
- **Position** specifies how many seconds from the beginning of the media to start playback.
- **Start Offset** specifies the beginning of the playback range in seconds from the beginning of the media. The media can be played only within the playback range. For example, if you set this option to 30, the user cannot rewind into or play the first 30 seconds of the media. The default value for this option is 0, which allows the media to start from the beginning.

- **End Offset** specifies the end of the playback range in seconds from the beginning of the media. The media can be played only within the playback range. For example, if you set this option to 100, the user cannot fast forward or play past the first 100 seconds of the media. The default value for this option is 0, which allows the media to play to the end.

## Compatibility

Where the script step runs	Supported
FileMaker Pro	No
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

## Originated in

FileMaker Pro 14.0

## Description

Use this script to play media files from container fields, layout objects, or URLs in FileMaker Go. The media can be an audio, a video, or an image file.

If the foreground window contains a media file that is playing when the window moves to the back, the media file continues to play.

## Example 1

Plays a media file in full screen and hides playback controls after the OnRecordLoad script trigger is activated:

```
AVPlayer Play [Field:Library::Video; Presentation: Full Screen Only; Hide
Controls: Yes]
```

## Example 2

Resumes playing a media file from the position at which it was last stopped.

```
Set Field [Library::Last Stopped Position; GetAVPlayerAttribute
("position")]
AVPlayer Play [Field:Library::Video; Position: "Library::Last Stopped
Position"]
```

## Example 3

Plays the media file in full screen for iPhone, and embedded for iPad.

```
If [Get(Device) = 3 //iPad]
  AVPlayer Play [Object: "Container"; Presentation: Start Embedded]
Else If [Get(Device) = 4 //iPhone]
  AVPlayer Play [Object: "Container"; Presentation: Start Full Screen]
End If
```

## AVPlayer Set Playback State

### Purpose

Pauses, resumes, or stops playing a media file that is playing or is paused.

### Format

```
AVPlayer Set Playback State [Paused/Playing/Stopped]
```

### Options

- **Paused** pauses playing the media file.
- **Playing** resumes playing a media file that has been paused.
- **Stopped** stops playing the media file. After a player is set to stop, it cannot be set to play with this script step.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	No
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

### Originated in

FileMaker Pro 14.0

### Description

Use this script step to pause, resume, or stop playing a media file that is playing or is paused.

### Example 1

Resumes playing a media file that has been paused.

```
AVPlayer Set Playback State [Playing]
```

### Example 2

Stops a media file if it is playing.

```
If [GetAVPlayerAttribute("playbackState") = 1
    AVPlayer Set Playback State [Stopped]
End If
```

## AVPlayer Set Options

### Purpose

Changes the settings for a media file that is playing or is paused.

### Format

```
AVPlayer Set Options [Presentation: Start Full Screen/Full Screen Only/  
Start Embedded/Audio Only;  
Disable Interaction: Yes/No; Hide Controls: Yes/No; Disable External  
Controls: Yes/No;  
Pause in Background: Yes/No; Position: <value or formula>;  
Start Offset: <value or formula>; End Offset: <value or formula>;  
Sequence: None/Next/Previous]
```

### Options

- **Presentation** changes the setting for displaying the media.
  - **Start Full Screen** starts playing the media in full screen but allows changing the presentation to embedded.
  - **Full Screen Only** plays the media in full screen.
  - **Start Embedded** starts playing the media as embedded but allows changing the presentation to full screen.
  - **Audio Only** plays only the audio.
- **Disable Interaction** changes the setting for enabling or disabling user interaction with the playback. If this option is set to Yes, you cannot use the playback controls or gestures to interact with the media.
  - **Yes** disables user interaction with the playback.
  - **No** enables user interaction with the playback.
- **Hide Controls** changes the setting for showing or hiding the playback controls while the media plays. If you hide the playback controls but enable interaction, you can use gestures instead of playback controls.
  - **Yes** hides the playback controls.
  - **No** shows the playback controls.
- **Disable External Controls** enables or disables the iOS playback controls on the lock screen or control panel when the media is playing or is paused.
  - **Yes** disables the iOS playback controls.
  - **No** enables the iOS playback controls.
- **Pause in Background** changes the setting for playing the audio when FileMaker Go is moved to the background. The video always pauses when FileMaker Go is moved to the background.
  - **Yes** pauses the audio when FileMaker Go is moved to the background.
  - **No** continues playing the audio when FileMaker Go is moved to the background.
- **Position** specifies how many seconds from the beginning of the media to move the current playback.

- **Start Offset** specifies the beginning of the playback range in seconds from the beginning of the media. The media can be played only within the playback range. For example, if you set this option to 30, the user cannot rewind into or play the first 30 seconds of the media. The default value for this option is 0, which allows the media to start from the beginning.
- **End Offset** specifies the end of the playback range in seconds from the beginning of the media. The media can be played only within the playback range. For example, if you set this option to 100, the user cannot fast forward or play past 100 seconds of the media. The default value for this option is 0, which allows the media to play to the end.
- **Sequence** specifies which media file should play next.
  - **None** plays no additional media.
  - **Next** plays the next media.
  - **Previous** plays the previous media.

## Compatibility

Where the script step runs	Supported
FileMaker Pro	No
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	No

## Originated in

FileMaker Pro 14.0

## Description

Use this script step to change the settings for audio, video, or image files when the file is playing or is paused.

### Example 1

Changes the setting of a media file that is currently playing to start the playback 50 seconds from the beginning of the file.

```
AVPlayer Set Options [Position: 50]
```

### Example 2

Enables user interaction with the playback after the video has played for 30 seconds.

```
AVPlayer Play [Object: "Container"; Disable Interaction: Yes]
Pause/Resume Script [Duration (seconds): 30]
AVPlayer Set Options [Disable Interaction: No]
```

### Example 3

Pauses the audio file that is playing if FileMaker Go moves to the background.

```
AVPlayer Set Options [Pause in Background: Yes]
```



## Refresh Portal

### Purpose

Refreshes the relationship and contents of the named object.

### Format

Refresh Portal [Object Name: <object name>]

### Options

- **Object Name** is a named object on the current layout. If **Object Name** is not specified, Refresh Portal refreshes the active layout object.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 14.0

### Description

Refresh Portal can update the contents of a portal when a [global field](#) used in the portal's filter calculation has been modified. For example, use Refresh Portal with the OnObjectExit script trigger to refresh a portal when users commit a change in a field used in the portal's filter calculation.

### Notes

- In FileMaker WebDirect, Refresh Portal performs the [Refresh Window script step](#).
- If the layout object specified for **Object Name** is not a portal, Refresh Portal performs the [Refresh Object script step](#).
- Refresh Portal acts on the foreground window of the current file.

### Example 1

Sets the value of a global field used in a portal's filter calculation, then updates the portal.

```
Set Field [Customer::Filter; 16]
Refresh Portal [Object Name: "Customer Orders"]
```

## Send DDE Execute (Windows)

### Purpose

Sends a DDE command to another application to execute commands in that application.

### Format

Send DDE Execute [Service Name: <service name>; Topic: <topic text or filename>; Commands: <commands>]

### Options

- **Service Name** is the name of the application that executes the commands. Refer to the documentation of the application you specify for the valid service name. You can enter the service name directly as text or click **Specify** to create the service name from a calculation.
- **Topic** is a filename or text string that describes the topic that the application executes the commands on. Refer to the documentation of the application specified in the Service Name for valid topics. You can enter the topic name directly as text or click **Specify** to create the topic name from a calculation. For more information, see Creating file paths.
- **Commands** are a calculated value or text string that specifies what the application does. Refer to the documentation of the application specified in the Service Name for valid commands and formats. You can enter the commands directly as text or click **Specify** to create the commands from a calculation.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

This script step sends a DDE (Dynamic Data Exchange) command to another application to execute a series of commands available in that application.

- FileMaker Pro sends DDE execute commands, but does not receive them.
- Because DDE is a Windows feature, if you run a script containing a Send DDE execute script step on an OS X-based computer, the script step is ignored. (An error code is generated, which can be captured with the Get(LastError) function.)

- When a FileMaker Pro script first establishes a DDE connection, the connection stays open to execute subsequent script steps for the same service name and topic. If the script includes another DDE Execute script step using a different service name or topic, FileMaker Pro closes the current connection and opens another with the new service name and topic. All open connections close when the script is completed.

### Example 1

Opens a URL in Internet Explorer. (Internet Explorer must be open when this step executes.)

```
Send DDE Execute [Service Name: "iexplore"; Topic: "WWW_OpenURL";  
Commands: "www.filemaker.com"]
```

## Perform AppleScript (OS X)

### Purpose

Sends AppleScript commands to another application.

### Format

Perform AppleScript ["<applescript text>"]

### Options

- **Calculated AppleScript** specifies a calculation to use as the [AppleScript](#) text.
- **Native AppleScript** is the text of an AppleScript (up to 30000 characters). Indenting of repeat loops and conditional statements is not supported.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

You can create a calculation to generate the AppleScript commands to be sent, or you can type the commands directly into the Native AppleScript text area.

For calculated scripts and scripts stored in FileMaker Pro fields, the AppleScript commands are compiled each time the script is performed. If you type the script into the Native AppleScript text area, then FileMaker Pro compiles the script and detects any scripting or system errors. (The script is recompiled whenever it's edited.)

**Note** Because AppleScript is an OS X feature, if you run a script containing a Perform AppleScript script step on a Windows computer, the script step is ignored. (An error code is generated, which can be captured with the Get(LastError) function.)

## Tips on usage

- FileMaker Pro can use the Perform AppleScript script step to send [Apple events](#) to itself or to FileMaker Pro software running on other machines.
- Use Perform AppleScript to pass image data between FileMaker Pro and other applications. With AppleScript, you can pass images stored in container fields to other applications or pass images into FileMaker Pro container fields.
- Use Perform AppleScript to communicate with applets and other scriptable applications. For example, if you have created an AppleScript applet with sub-routines, you can call the handlers using the Perform AppleScript command, like this:

```
Perform AppleScript ["tell application "My Applet" to
doMyRoutine()"]
```

### Example 1

Opens the Documents folder of the current OS X User.

```
Perform AppleScript ["tell application "Finder" (*enter line break*)
activate (*enter line break*) set x to path to documents folder (*enter
line break*) open x (*enter line break*) end tell"]
```

### Example 2

Sets the bounds of the Documents window to the specified size. The Documents folder must be open before this script runs.

```
Perform AppleScript ["tell application "Finder" to set bounds of window
"Documents" to {170, 70, 1000, 600}"]
```

### Example 3

Calculates and performs the AppleScript to install a network printer. "\" tells FileMaker Pro to recognize the symbol that follows as a character and not as a calculation operator.

```
Perform AppleScript ["do shell script \"lpadmin -p " & Printers::Name & "
-E -v lpd://" & Printers::IP Address & " -P /Library/Printers/PPDs/
Contents/Resources/" & Substitute ( Printers::Driver Name ; " " ; "\\\" )
& ".gz -D \\\"" & Printers::Description & "\\\"\""]
```

## Execute SQL

### Purpose

Executes any SQL statement on an ODBC data source.

### Format

Execute SQL [No Dialog; ODBC: <datasource name>; <native SQL or calculated SQL>]

### Options

- **Perform without dialog** prevents the Specify SQL dialog box, the Select ODBC Data Source dialog box, and the Password dialog box from displaying when the script step executes.
- **ODBC Data Source** displays the Select ODBC Data Source dialog box. Select a data source from the list, click **OK**, and enter a valid user name and password.
 

**Note** Select **Save user name and password** if you selected **Perform without dialog**, or users may be unable to access your data source.
- **Calculated SQL text** specifies a calculation to use as the SQL query.
- **SQL text** lets you manually enter a SQL query statement.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Partial
FileMaker Go	No
Custom Web Publishing	Partial
FileMaker WebDirect	Partial
Runtime solution	No

### Originated in

FileMaker Pro 6.0 or earlier

### Description

You can use this script step to manage data in an ODBC [data source](#) through an ODBC SQL interface. This provides more control over the FileMaker Pro interaction with ODBC data sources. You can add multiple Execute SQL steps to a script.

---

**Important** See Get functions for information about error handling.

---

- Get(LastODBCError) function returns the latest error state returned by ODBC.
- Get(LastError) function returns the last FileMaker Pro error.

## Notes

- SQL statements are limited to a maximum length of 256 K characters (512 KB).
- FileMaker Server, FileMaker WebDirect, and Custom Web Publishing support this script only if the **Perform without dialog** option is selected.
- If you use the Execute SQL script step to send ODBC data that contains Unicode strings, your ODBC driver must support Unicode. Otherwise, the results may be inconsistent.
- ODBC import, the Execute SQL script step, and external SQL data sources are not supported in runtime solutions created with FileMaker Pro Advanced.
- Because Microsoft SQL Server supports both Unicode and non-Unicode field types, you must prefix all Unicode strings with an uppercase “N” (which stands for “National” in the SQL-92 standard). Otherwise, when a Unicode string containing non-English characters is passed to Microsoft SQL Server, you may lose any data that doesn’t exist in the Microsoft SQL Server code page.

## Example 1

Updates records in the Employees table of an external ODBC data source.

```
Execute SQL [SQL Text: INSERT INTO Employees (EmployeeID, FirstName,
LastName, Title, WorkPhone, Salary) VALUES (100, N'Joe', N'Smith',
N'Software Engineer', '987-7000', 100000) UPDATE Employees SET Title =
N'Manager' WHERE EmployeeID = 103 DELETE FROM Employees WHERE EmployeeID =
103]
```

## Example 2

Calculates and performs an SQL statement to update records in the Customers table of an external ODBC data source.

```
Execute SQL [Calculated SQL Text: "INSERT INTO Customers (Company,
LastName) VALUES (" & Customers::Company & ", " & "N'" & Customers::Last &
"')"]]
```

## Send Event

### Purpose

In Windows, performs an action in another application; in OS X, sends an Apple event to another application.

### Format

Windows: Send Event ["avet"; "<event name>"; "<File or Calculation or Text>"]

OS X: Send Event ["<Target Application>"; "<Event Class>"; "<Event ID>", "<Document or Calculation or Script Text>"]

### Options (Windows)

- **Send the <event name> message** lets you choose between the following:
  - **open document/application** tells FileMaker Pro to open a document file or application. Documents are opened using the application that Windows has associated with the document's file type.
  - **print document** tells FileMaker Pro to print a document in another application.
- **File** allows you to specify a document/application to open, or a document to print. For more information, see Creating file paths.
- **Calculation** allows you to create a message from a calculation.
- **Text** allows you to manually enter text for the message to be sent.
- **Bring target application to foreground** activates the target application and display it on the screen. Displaying the target application can slow down the performance of your script. If **Bring target application to foreground** is not selected, the event is performed in the background.

### Options (OS X)

- **Send the <value> event with** lets you choose between the following:
  - **open application** tells FileMaker Pro to open an application. Click **Specify Application** to select the application.
  - **open document** tells FileMaker Pro to open a document in the target application. You can also specify a calculated value or script.
  - **do script** tells FileMaker Pro to perform a script in the language of the target application. Click **Specify Application** to select an application, and use **Document** to select the document to use with the target application. Or, select **Script text** and enter script text or type in the name of the script (make sure it is one that will be recognized by the target program).
  - **other** displays the Specify event dialog box, where you can manually enter the [Apple event Event class](#) and **Event ID**.
- **Document** allows you to select the document you want used with the target application. For more information, see Creating file paths.
- **Calculation** allows you to create a calculation that generates a value you want to send with the event.



- **Bring Target Application to foreground** activates the target application and displays it on the screen. Displaying the target application can slow down the performance of your script. If **Bring Target Application to foreground** is not selected, the event is performed in the background.
- **Wait for event completion before continuing** tells FileMaker Pro to wait until the event is finished before continuing. If you don't want to wait until the event is completed, deselect this option.
- **Copy event result to the clipboard** copies the resulting events data to the Clipboard, from which it can later be retrieved. This option is disabled if **Bring Target Application to foreground** is selected.
- **Specify Application** allows you to select the target application.

## Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	No
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

## Originated in

FileMaker Pro 6.0 or earlier

## Description

Send Event starts another application, opens a document in another application, or prints a document in another application (Windows); sends an Apple event to another application (OS X).

- Each Send Event script step sends one event. You can include more than one Send Event in a script.
- When specifying a document or application by calculation or text, the file type or application name will appear as <unknown> in the script definition.
- Windows: For additional scripting capabilities, you can create a program in Basic or C and run that program with this script step.
- OS X: When FileMaker Pro sends an Apple event, it sends text (not compiled) data. You must know what information the target application expects to receive with an event.

## Example 1

In OS X, opens the TextEdit application.

```
Send Event ["TextEdit", "aevt", "oapp"]
```

## Example 2

In Windows, opens the Notepad application.

```
Send Event ["aevt"; "odoc"; "NOTEPAD.EXE"]
```

### Example 3

In Windows, opens the image.bmp file with its default application.

```
Send Event ["aevt"; "odoc"; "image.bmp"]
```

## Comment

### Purpose

Adds comments to the list of steps in the script.

### Format

#<comment text>

### Options

<comment text> lets you enter comments.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Yes
Custom Web Publishing	Yes
FileMaker WebDirect	Yes
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

Use comments to document your script. Comments appear in bold and are prefaced with a #. Comments are present only when you are viewing the script and do not appear when the script is performed.

### Notes

- To add a new line in the comment text, press:
  - Windows: Ctrl+Enter or Alt+Enter
  - OS X: Ctrl-Return or Opt-Return
- Comments print in italics.

## Example 1

Shows how comments are used to explain script steps.

```
Go to Layout ["Invoices"]  
#Find all invoices for the current customer  
Find Matching Records [Replace; Invoices::Customer ID]  
#Sort found set by Invoice ID  
Sort Records [Restore; No dialog]  
#Save all records in the found set as a PDF  
Save Records as PDF [No dialog; "Customer Backup.pdf"; Records being  
browsed]  
#Go back to the original layout  
Go to Layout [original layout]
```

## Flush Cache to Disk

### Purpose

Immediately flushes the FileMaker Pro internal file cache to the computer's hard disk.

### Format

Flush Cache to Disk

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

FileMaker Pro automatically flushes changes from its internal file [cache](#) to the computer's hard disk during idle time. Use this script step to force FileMaker Pro to flush its internal file cache after extensive changes have been made through script steps such as the [Import Records script step](#) or the [Replace Field Contents script step](#).

### Example 1

Assigns serial numbers to all records in the found set and flushes the changes to the disk.

```
Perform Find [Restore]
Sort Records [Restore]
Go to Record/Request/Page [First]
Replace Field Contents [Products::Serial Number; Serial numbers]
Flush Cache to Disk
```

## Exit Application

### Purpose

Closes all open files; and in FileMaker Pro, exits the application.

### Format

Exit Application

### Options

None.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Yes
FileMaker Server scheduled script	Yes
FileMaker Go	Partial
Custom Web Publishing	No
FileMaker WebDirect	Partial
Runtime solution	Yes

### Originated in

FileMaker Pro 6.0 or earlier

### Description

- In FileMaker WebDirect, the Exit Application script step logs out the current web session and returns you to the FileMaker WebDirect Launch Center.
- In FileMaker Go, the Exit Application script step closes all open databases and leaves FileMaker Go running.

### Example 1

Prevents the user from opening the database on a weekend. Started by the OnFirstWindowOpen script trigger.

```
Allow User Abort [Off]
If [DayName ( Get ( CurrentDate ) ) = "Saturday" or DayName ( Get (
CurrentDate ) ) = "Sunday"]
    Exit Application
End If
```

## Enable Touch Keyboard

### Purpose

Enables or disables the touch keyboard.

### Format

Enable Touch Keyboard [On/Off/Toggle]

### Options

- **On** enables the touch keyboard.
- **Off** disables the touch keyboard.
- **Toggle** switches between enabling and disabling the touch keyboard.

### Compatibility

Where the script step runs	Supported
FileMaker Pro	Partial
FileMaker Server scheduled script	No
FileMaker Go	Yes
Custom Web Publishing	No
FileMaker WebDirect	No
Runtime solution	Partial

### Originated in

FileMaker Pro 14.0

### Description

Use this script to enable or disable the touch keyboard in FileMaker Go or Windows 8. Enable Touch Keyboard is used only for fields; it has no impact on the touch keyboard for dialog boxes.

You can use the Get(TouchKeyboardState) function to check the current setting of the touch keyboard.

### Example 1

In FileMaker Go, enables the touch keyboard.

```
Enable Touch Keyboard [On]
```

### Example 2

Checks the current setting of the touch keyboard and disables the touch keyboard if it is enabled.

```
If [ Get ( TouchKeyboardState ) = 1 ]
    Enable Touch Keyboard [Off]
End If
```

# Glossary

## A

### Access key (Windows)

A key that activates a menu, menu item, or control when used with the ALT key. In Windows, this key corresponds to the underlined letter on a menu, command, or dialog box option.

### Access privileges

Permission to view and work with certain records, fields, layouts, value lists, and scripts and to perform selected activities in a file.

### Account

A username and (usually) password that accesses a file with a defined level of privileges. There are two predefined accounts: Admin and Guest. Admin is a Full Access account that can be renamed or deleted. At least one Full Access account that is authenticated via FileMaker must be defined for each file. Guest account is a special account that cannot be renamed or deleted, but can be made active or inactive.

### ActiveX Automation

A Windows programming and scripting protocol that allows external control of specific commands and actions in FileMaker Pro, including opening and closing FileMaker Pro files, toggling the application's visibility, and performing FileMaker Pro scripts.

### Alpha channel

The alpha channel of an image stores transparency information and controls the transparency of the red, green, and blue color channels.

### Animation

A visual effect that provides feedback while you are performing actions in FileMaker Pro and FileMaker Go, such as switching between slide panels.

### API (Application Programming Interface)

A set of software application building blocks, such as data structures, variables, procedures, and functions, used by programmers.

### AppleScript

A scripting language you can use to control functions of OS X and of applications that support AppleScript (often called scriptable applications).

### Apple events

An OS X technology that lets applications communicate with one another. FileMaker Pro can send and receive Apple events to and from applications that support them.

### Ascending sort order

Alphabetical sequence (A to Z) for words, lowest to highest order for numbers, and earliest to latest for dates and times.

### ASCII character set

American Standard Code for Information Interchange. A standard character set used by computer systems worldwide (often extended for different alphabets).

### Authentication

The process of checking the validity of an account and password (if one is defined) before assigning privileges and allowing access to a system or a file. An account authenticated via FileMaker Pro or FileMaker Server is referred to as a FileMaker account. (FileMaker Server can



also authenticate an account via External Server — an external authentication system such as Apple Open Directory, or a Windows domain.)

### Authorization

Allowing a file to access a protected file's schema (including its tables, layouts, scripts, and value lists). Such a file is an *authorized file*.

### Auxiliary files

In a FileMaker Pro Advanced runtime solution, files that are bundled with a primary file.

## B

### Badge

An icon indicating that conditional formatting, script triggers, placeholder text, or tooltips have been applied to a field, object, or layout; that find is available for a field; that an object is a button, popover button, or button bar; or that a solution is a favorite.

### Base directory

For container fields that store an external reference, the directory in which the referenced data is stored. You can also specify a file system path or a calculation for each open storage container field.

### Binding key

In FileMaker Pro Advanced, a case-sensitive key from 1 to 24 characters long that links the components of a runtime solution.

### Blank layout

A layout that contains empty body, header, and footer parts. (In previous versions of FileMaker Pro, a Blank layout was a predefined layout type.)

### Body part

A layout part that contains individual records from a file.

### Boolean value

A Boolean value is either true or false. A field containing any number except zero evaluates as true. A field containing zero, no data, or content that does not resolve into a number evaluates as false. For example, a field containing "ABC," "ABC0," or an empty field is false. A field containing "1" or "ABC2" is true.

### Break field

In a subsummary part, records are grouped (sorted) by values in another field, called the break field. Whenever the value of the break field changes, the report "breaks" and FileMaker Pro inserts the subsummary part.

### Browse mode

The FileMaker mode in which you enter and edit information in fields. Groups of fields make up the records of your file. You can view one record at a time (click **Form View** in the layout bar), view your records in a list (click **List View**), or view records arranged in a spreadsheet-like table (click **Table View**).

(Use Browse mode to enter and edit your information; use Layout mode to design how your information is displayed. Use Find mode to find records that match search criteria; use Preview mode to display how your records will print.)

### Button

A layout object that performs a specified script in Browse or Find mode.

**Button bar**

A layout object that displays buttons or popover buttons in a horizontal or vertical bar. Button bars contain segments that represent individual buttons consisting of any combination of a button icon and a text label.

**C****Cache**

The amount of memory assigned to FileMaker Pro. A larger cache size increases performance. A smaller cache size saves data to the hard disk more frequently, offering greater protection in case of a system crash.

**Calculation field**

A field that returns the result of a calculation of values. You can create a formula for the calculation using functions, constants, operators, and information from other fields in the same record.

**Cascading style sheets**

A system of codes or tags that define how a web browser displays information in a web page. Cascading style sheets provide more control over the layout and appearance of web pages than HTML. Cascading style sheets work like templates for web pages. If a web page contains cascading style sheets, users must view it in a browser that supports cascading style sheets.

**Character encoding**

The character set or code page of a file. If necessary, you can specify a character set to be used when importing, exporting, indexing, sorting, and spell-checking files. FileMaker supports ASCII, Windows ANSI, Macintosh, Japanese (Shift-JIS), Unicode UTF-8, Unicode UTF-16, and Unicode UTF-16 Windows.

**Chart**

A graphical depiction that makes it easy to compare data and see patterns and trends.

**Chart legend**

A key that identifies the colors assigned to a data series in a chart.

**Client**

A user that opens a file that is shared on a network, published in a browser, or shared via ODBC/JDBC. FileMaker Network settings and privileges determine how FileMaker Pro and FileMaker Go clients interact with files hosted through FileMaker Pro, and FileMaker Server.

**Client application**

The application that requests data (using SQL) from a data source (using ODBC or JDBC). Also, FileMaker Pro is a client application when it accesses a file hosted by FileMaker Server.

**Client/server architecture**

The relationship between two networked computers that share resources. The client requests services from the server, and the server provides services to the client.

**Clipboard**

A temporary storage area in computer memory where FileMaker Pro places the most recent selection you've cut or copied.

**Clone**

A copy of a FileMaker Pro file that contains all the field definitions, tables, layouts, scripts, and page setup options, but none of the data.

### Column

When a layout is viewed in Table View, a column corresponds to a field.

### Combo box

A type of list you can set up in Layout mode. In the **Data** tab of the Inspector, select **Include arrow to show and hide list**. The list will open only when users click the arrow, not when they enter the field.

### Commit

To save changes to a file. Certain actions such as navigating between records, finding, and sorting do not change the file's modification date. Other actions such as changing data in a record or changing a layout do change the file's modification date.

### Consistency check

A consistency check examines a file that may have been damaged due to, for example, an unexpected quit. FileMaker Pro reads every file block and verifies that the internal structure of the block is valid and the block is properly linked to other blocks in the file. (A consistency check does not read all the data within each file block or check the schema or higher-level structures in the file; these tasks are performed by file recovery.)

### Constant

In a formula, an unchanging value. For example, a constant can be a field name, a text literal ("Total:"), or a number. The value of the constant doesn't change from record to record as the formula is evaluated.

### Container data type

Pictures, movies, and documents such as Microsoft Word files and PDF files can be inserted in a container field. Data in container fields can be embedded in the field, stored by file reference, or stored externally.

### Context

The table occurrence from which calculations and scripts are begun, and from which a relationship is evaluated in the relationships graph.

### Convert

Opening a data file from another application, which creates a new FileMaker Pro file containing the data.

Also refers to opening a file created with a previous version of FileMaker Pro.

### Custom function

A function that is not one of the default FileMaker Pro functions. In FileMaker Pro Advanced, you can create custom functions that can be reused anywhere in the file.

### Custom menu

A menu that is not one of the default FileMaker Pro menus. In FileMaker Pro Advanced, you can create custom menus, menu items, and menu sets.

## D

### Data Entry Only privilege set

One of the three predefined privilege sets that appear in every file. The Data Entry Only privilege set allows read/write access to the records in a file, but not design access (for example, the ability to create layouts and value lists).

**Data point**

In a chart, the value of data plotted on the x or y axis displayed as a column, bar, point, bubble, or slice.

**Data series**

Data points that are plotted in a chart. When multiple data series are charted, each data series is displayed in a unique color and is defined in the chart's legend, if included.

**Data source**

A named reference that provides access to another FileMaker file or to an ODBC database. ODBC data sources are also referred to as external SQL sources (ESS).

In charting, the origin of the data to be charted — current found set, current record (delimited data), or related records.

**Data source name (DSN)**

A data structure that contains the information about a specific file that an ODBC driver needs in order to connect to it.

**Data Viewer**

A FileMaker Pro Advanced feature that lets you monitor expressions such as field values, local and global variables, and calculations. You can monitor expressions while running scripts or while testing them in the Script Debugger. You can also monitor field values and variables in the file.

**Database file**

A component of a FileMaker solution.

**Database**

The arrangement of tables and fields and their interrelationships in a file.

**Database Design Report**

A FileMaker Pro Advanced tool that creates a report of your database schema.

**Database Encryption**

A form of encryption that protects “data at rest.” For FileMaker, data at rest is a FileMaker Pro file, and its temporary files, while it is being stored on disk (and not open). An encrypted file is protected from unauthorized access with an encryption password. FileMaker Pro Advanced is required to encrypt files. Encrypted files can be decrypted and re-encrypted as needed.

**Database Management System (DBMS)**

An application that allows users to store, process, and retrieve information in a database.

**Descending sort order**

Reverse alphabetical sequence (Z to A) for words, highest to lowest order for numbers, and latest to earliest dates and times.

**Developer Utilities**

A FileMaker Pro Advanced feature that lets you bind files into a runtime solution, display files in Kiosk mode, prevent users from modifying the design or structure of databases, and automatically rename sets of files and update links to related files.

**Dialog window**

A document window in a modal state. Its behavior is similar to the behavior of a window when a running script is paused. You can create and customize a dialog window using the New Window script step.

### Document window

A standard modeless FileMaker window. You can create and customize a document window using the New Window script step.

### Domain name

The primary subdivision of Internet addresses, which is indicated by the last part of an Internet address after the final period (or dot). In the United States, the standard domains are .com, .edu, .gov, .mil, .org, and .net. In other countries, the top-level domain is usually the country domain.

### Domain name server (DNS)

A server that matches up the URL of a website (for example <http://www.filemaker.com>) with its proper numeric IP address (for example 12.34.56.78).

### Driver

The ODBC or JDBC driver translates SQL queries into commands that a DBMS can understand. It processes ODBC/JDBC calls, submits SQL requests to the data source, and returns the data back to the driver manager, which then routes it to the requesting application (for example, FileMaker Pro).

### Driver manager

The control panel that manages communication between requesting applications and data sources. When an application makes a request via ODBC/JDBC, the driver manager routes the request through the correct driver to the correct data source and returns the data to the requesting application. All ODBC/JDBC drivers and data sources to be used on that computer are registered with the driver manager.

### Drop-down calendar

A field set up to display an interactive monthly calendar when a user enters the field in Browse or Find mode.

### DTD (Document Type Definition)

A formal description of a particular type of XML. It defines a document structure, including the names of data elements and where they may occur within the structure. Valid XML conforms to the rules established in its DTD.

### Dynamic guides

In Layout mode, guidelines that extend horizontally and vertically to help you move, resize, or align objects. Dynamic guides also “snap-to” the upper and lower boundaries and the centers of objects as you move, resize, or align the objects.

## E

### Email

Electronic mail. A system for transmitting messages from one computer or terminal to another. A message sent from one computer user to another is stored in the recipient’s account mailbox until that person logs in to the system and reads the message.

### Embedded

For container fields, a file that is stored in the container field. Container data can also be stored by reference or stored externally.

### Encryption password

The password required to open an encrypted file. For FileMaker Pro, the encryption password is required for the FileMaker Pro user who opens the file, but not for the client who opens a file hosted by FileMaker Pro. FileMaker Pro Advanced is required to enable, disable, or change an encryption password.

### Envelope layout

A predefined layout with fields arranged for printing on standard business envelopes.

### Ethernet

A type of fast local area network used for connecting computers and peripherals within the same building or campus.

### Export

To save data from one file so that it can be used in another file or in another application.

### Expression

A value or any computation that produces a value. Expressions can contain functions, field values, and constants and can be combined to produce other expressions.

### Extended privilege

Data sharing permissions that determine if a privilege set allows users to open a shared file using FileMaker Pro or FileMaker Server (fmapp); view a file as an ODBC or JDBC data source (fmjdbc); view a file using a web browser via FileMaker WebDirect (fmwebdirect), XML web publishing (fmxml), or PHP web publishing (fmphp); or access a file in FileMaker Pro or FileMaker Go without having to re-login (fmreauthenticate10). Plug-ins from third-party developers may provide additional extended privileges.

### External function

A function written in C or C++ as part of a third-party plug-in that extends the feature set of FileMaker Pro or FileMaker Pro Advanced.

### External script

A script used by a file, but defined in a different file. Use the Perform Script script step to select a defined script from a related file, or to select a file reference to a file on your hard drive or network.

## F

### Field

The basic unit of data in a record. You define a field to hold a specific, discrete category of data, such as Last Name, Employee Photo, or to display the result of a calculation. You can define text, number, date, time, timestamp, container, calculation, and summary fields. Field can also refer to the object on a layout that displays the data, such as an edit box, checkbox set, or pop-up menu.

### Field boundary

In Layout mode, an outline that shows the size of a field. To see field boundaries, choose **View** menu > **Show** > **Field Boundaries**. These boundaries only appear in Layout mode. However, you can use the Appearance tab of the Inspector to format objects to have borders that do appear in Browse mode and when you print the layout.

### Field label

Text on a layout or within a field that identifies a field. A field label can be the field name, other text (such as instructions), or the result of a calculation. Field labels can appear in various positions outside the field or as placeholder text within the field. You can change or delete a field label if you want.

### Field name

The name you assign to a field when you define the field. When you place a field onto a layout, you can have FileMaker Pro also place an editable field label that matches the field name. You can also use the field name as placeholder text. Fully qualified fields are displayed in `tablename::fieldname` format.

### Field type

The part of a field definition that determines what kind of data you can enter in the field and the kinds of operations FileMaker Pro can perform with the data. FileMaker Pro can create text, number, date, time, timestamp, container, calculation, and summary fields. (Global fields contain the same value for all records in the file and can be of any type except summary.)

### File path

The location of a file in an operating system as identified by the drive, folders, filename, and file extension.

### FileMaker Network

A communications method built into FileMaker Pro that allows you to share files hosted by FileMaker Pro or FileMaker Server with others over a network or in FileMaker Go. The FileMaker Network settings and privileges you set up determine how other users (clients) can open and use the shared file.

### FileMaker WebDirect

A web application for accessing layouts from files in a web browser. Web [clients](#) use FileMaker WebDirect to access layouts from files hosted by FileMaker Server.

### Find mode

The FileMaker mode in which you specify criteria for finding a subset of records.

(Use Browse mode to enter and edit your information; use Layout mode to design how your information is displayed. Use Find mode to find records that match search criteria; use Preview mode to display how your records will print.)

### Find request

In Find mode, a blank form based on the current layout. Enter search criteria into one or more fields of the find request.

### Firewall

A security system used to prevent unauthorized users from gaining access to a LAN. A firewall usually has a single computer that is connected to the Internet and all Internet traffic must pass through that computer.

### Floating document window


A standard modeless FileMaker window that stays on top of other windows while users work in FileMaker Pro. You can create and customize a floating window using the New Window script step.

### Footer part


Use the footer part for page numbers or dates. This part appears at the bottom of every screen or page (unless you add a title footer). You can have only one footer in a layout. A field in the footer displays data from the last record on that page.

### Form View


Displays one record at a time. By default, fields appear on separate lines. To select this view, click **Form View** in the layout bar.

If you don't see the status toolbar, click the status toolbar control button  at the bottom of the document window.

### Formatting bar

In Layout and Browse modes, the area that displays options for formatting text and objects. To show or hide the formatting bar, click **Formatting**  in the layout bar.



If you don't see the status toolbar, click the status toolbar control button  at the bottom of the document window.

### Formula

A set of instructions that FileMaker Pro follows to calculate a value used in a field or as the criteria for matching database records.

### Found set

The set of records in a table that are made active when you search for data. When you find all records, the found set is the entire table.

### Full Access privilege set

One of the three predefined privilege sets that appear in every file. The Full Access privilege set allows complete read/write access to a file, including making changes to privileges for the file.

### Fully qualified name

The complete name of a field or layout, expressed using the format `tableName::[field or layout name]`, where "tableName" is the name of the underlying table occurrence in the relationships graph upon which the field or layout is based. A fully qualified name identifies an exact instance of a field or layout. Because fields and layouts with common names can be based on different tables, FileMaker Pro uses fully qualified names to avoid errors in calculations and scripts.

### Function

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

### Function list separator

The punctuation character ; (a semicolon) that separates parameters in a function definition. If you type a comma (,), FileMaker Pro automatically changes it to a semicolon after you close the Specify Calculation dialog box.

## G

### GIF (Graphics Interchange Format)

A platform-independent file format often used to distribute graphics on the Internet.



**Global field**

A field defined with the global storage option can contain one value that's used for all records in a file. Use the value of a global field as a fixed value in calculations, to declare variables in If or Loop script steps, or for fields that rarely need to be updated (for example, a company logo in a container field). A global field can be any field type except summary. A global field can't be indexed.

**Global variable**

A global variable can be used in a calculation or script anywhere in a file, for example, other scripts or file paths. The value of a global variable is not cleared until the file is closed.

**Grammar**

A precise description of a formal language, such as XML, consisting of sets of rules for how strings (words) in the language can be generated, and how the strings can be recognized as part of the language.

**Grand summary**

Total or other aggregate value for all records in the found set.

**Grand summary part**

Use grand summary parts to view and display summary information (totals, averages, and so on) in summary fields for all records in the found set. You can add one grand summary part at the top (leading) and one grand summary part at the bottom (trailing) of a layout.

**Grid**

In Layout mode, a series of nonprinting intersecting horizontal and vertical lines. The grid aligns objects you create, resize, move, or position. Objects “snap to” the grid to help you create and edit objects more precisely. Gridlines adjust when you change the unit of measure.

**Grouped object**

A collection of objects that behaves as one object in Layout mode.

**Guest**

A user who opens a protected file without specifying an account name and password. The Guest account is assigned a privilege set that determines what guests can do in the file. Guest access may be disabled for a file.

**Guides**

Nonprinting, movable horizontal and vertical guidelines to help you position and align objects in Layout mode. An object's left or right boundary, top or bottom boundary, or center “snaps to” a guide.

**H****Handle**

One of the small squares surrounding a selected object, and used to resize and reshape the object.

**Header part**

Use a header part for column headings, titles, and other information that appears only at the top of every page on a layout. FileMaker Pro displays the header in Browse mode and prints it on every page, except the first page if you add a title header. Fields added to a header are printed on every page, using data from the first record on that page.

## Homepage

The starting page for a website. It often has some form of a table of contents that allows viewers to link to other parts of the website.

## Host

After a file has been opened and enabled for sharing, the host is either the first FileMaker Pro user to share the file, or the host is FileMaker Server. Once the host opens the file, other users (clients) can access and change the file. All changes are stored in the file on the computer or device where the file resides. FileMaker Network settings and privileges determine how FileMaker Pro and FileMaker Go clients interact with files hosted through FileMaker Pro or FileMaker Server.

## HTML (Hypertext Markup Language)

A language that is used for displaying and accessing information on the World Wide Web.

## HTTP (Hypertext Transfer Protocol)

The Internet protocol that defines how a web server responds to requests for files.



## Import

To bring (copy) data from a table, another file, or another application into the current table. You can also import scripts from one FileMaker Pro file into another.

## Indexing

An option that can be enabled when defining (or changing) the definition of a field. When indexing is enabled, FileMaker Pro builds a list of all the values that occur in the field in the table. This improves the performance of tasks such as finding data, but it increases the size of the file on disk.

## Inline scroll bar

A scroll bar that appears only while scrolling is occurring.

## Inspector

In Layout mode, a tool that allows you to view and edit the settings for objects, layout parts, and the layout background. You can open multiple inspectors to view and format settings in different tabs at the same time. To open the Inspector, choose **View** menu > **Inspector**. To open another Inspector window, choose **View** menu > **New Inspector**.

## Interactive container

A container field for which the **Interactive content** option in the Inspector is selected. Interactive containers are rendered using the web browser technologies that web viewer uses.

## Internet

An international network of many other networks that are linked using the TCP/IP network protocol.

## Internet service provider (ISP)

The company from which you purchase your connection to the Internet.

## Intranet

A private TCP/IP network of linked computers within a company or organization.

### IP (Internet Protocol) address

For IPv4, a four-part number, usually formatted as 12.34.56.78, that uniquely identifies a computer on the Internet; for IPv6, an eight-part number, usually formatted as [2001:0DB8:85A3:08D3:1319:8A2E:0370:7334], that uniquely identifies a computer on the Internet. When referenced in an application, IPv6 addresses must be contained in brackets; for example, [2001:0DB8:85A3:08D3:1319:8A2E:0370:7334].

## J, K

### JDBC

A Java API that uses SQL statements to access data from, and exchange data with, many database management systems. The JDBC driver communicates between your Java applet and the FileMaker Pro or FileMaker Server data source.

### JPEG (Joint Photographic Experts Group)

A platform-independent file format often used to distribute graphics on the Internet.

### Key

A column (or columns) that makes a particular row unique (corresponds to a match field).

### Kiosk

A FileMaker solution that runs full screen, without toolbars or menus. Users click buttons to navigate. In FileMaker Pro Advanced, use the Developer Utilities to create Kiosk solutions. You can bind Kiosk solutions into stand-alone runtime solutions.

## L

### Labels layout

A predefined layout with fields arranged for printing horizontally or vertically on mailing label stock, and media and index sheets.

### LAN (local area network)

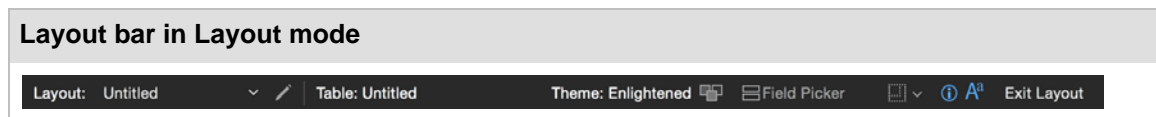
A connection between computers within a location using cable or a wireless system.


### Layout

An arrangement of fields, objects, pictures, and layout parts that represents the way information is organized and presented when you browse, preview, or print records. You can design different layouts for entering data, printing reports and mailing labels, displaying web pages, and so on.

### Layout bar

In the status toolbar, the area that displays options for working with layouts, such as the Layout pop-up menu.



If you don't see the status toolbar, click the status toolbar control button  at the bottom of the document window.

### Layout mode

The FileMaker mode in which you determine how information in fields is presented on the screen and in printed reports.


(Use Browse mode to enter and edit your information; use Layout mode to design how your information is displayed. Use Find mode to find records that match search criteria; use Preview mode to display how your records will print.)

### Layout part

A section of a layout that organizes or summarizes information. Layout parts include body, header, footer, title header, title footer, top navigation, bottom navigation, leading and trailing grand summary, and leading and trailing subsummary.

### Layout pop-up menu

In the layout bar, a pop-up menu from which you can choose **Manage Layouts** (Layout mode) or a defined layout (all modes).


If you don't see the status toolbar, click the status toolbar control button  at the bottom of the document window.

### Layout theme

A collection of coordinated styles that determine the color, object, part, and background attributes, and the fonts used on a layout. Themes also enhance the appearance of a layout or report and give all your layouts a consistent look. A theme does not control the placement or behavior of fields or objects on a layout. A theme is assigned when you create a new layout, but you can change the theme in Layout mode. You can also create a theme by changing the styles used for the layout, and then saving the theme with a new name.

### Layout tools

In the status toolbar in Layout mode, a collection of tools that includes the Selection tool (pointer), Text tool, Line tool, Rectangle tool, Rounded Rectangle tool, Oval tool, Field/Control tool, Button tool, Popover Button tool, Button Bar tool, Tab Control tool, Slide Control tool, Portal tool, Chart tool, Web Viewer tool, Field tool, Part tool, and Format Painter tool.

If you don't see the status toolbar, click the status toolbar control button  at the bottom of the document window.

### Layout types

FileMaker Pro includes several predefined types of layouts and reports to display on different types of devices (such as laptop computer screens or touch device screens), for different purposes (such as browsing records, entering data, or printing reports, mailing labels, or envelopes). After you choose a layout type, you can make additional choices.

To use a predefined layout type, in Layout mode, click **New Layout/Report** in the status toolbar. The assistant guides you through creating the type of layout or report you want. After you finish the assistant, use the tools and commands in Layout mode to tailor the layout for your needs.

### LDAP (lightweight directory access protocol)

A protocol for accessing online directory services.


## Link

On a web page, text or a graphic which — when you click it — displays an associated web page or a specific element within a page.

Also, the HTML code that creates a link to another web page or to a specific element within a page.

## List View

Displays records one record at a time in a list format. To select this view, click **List View** in the layout bar.

If you don't see the status toolbar, click the status toolbar control button  at the bottom of the document window.

## List view layout

A type of Report layout in which fields that you specify appear in columns across the screen or page in one line. Field names are in the header part and the footer part is blank. (In previous versions of FileMaker Pro, a List view layout was a predefined layout type.)

## Locked object

An object on a layout that cannot be edited or deleted. To lock or unlock an object, select it in Layout mode. In the Inspector, click **Position**, then choose **Lock** or **Unlock** in the Arrange & Align area. If an object is locked, its selection handles dim.

If you don't see the Inspector, choose **View** menu > **Inspector**.

## Lookup

A lookup matches records and copies data from a related table into a field in the current table. After data is copied, it becomes part of the current table (as well as existing in the table it was copied from). Data copied to a table doesn't automatically change when the values in the related table change.

## Lookup source field

The field in the related table that contains the data you want copied during a lookup.

## Lookup target field

The field that you want data copied to during a lookup.

# M

## Many-to-many relationship

A correspondence between data in database tables in which more than one record in the first table is related to more than one record in another table, and more than one record in that table is related to more than one record in the first table.

## Match field

For relational databases and lookups, a field in a source table and a field in a related table that contain values you want to use to find matching records. (A match field is sometimes called a key field or trigger field.) In the relationships graph, match fields appear in italics.

For importing records, values in the match fields determine which records in the source table update which records in the target table.

## Menu

A list of menu items. Each menu has a title that appears on the menu bar.

**Menu bar**

The area at the top of the window (Windows) or screen (OS X) that displays the installed menu set.

**Menu item**

One item listed in a menu on the menu bar. A menu item corresponds with one command, submenu, or separator.

**Menu item properties**

All the settings for a menu item, including platform, display title, shortcut, and action.

**Menu set**

The collection of menus that installs on the menu bar.

**Merge field**

A placeholder on a layout for the contents of a field. A merge field expands or contracts in Browse and Preview modes, or when printed, to fit the amount of data in the field for each record.

Merge fields are useful for mail merge form letters; FileMaker Pro uses merge fields in predefined Labels and Envelope layouts.

**Merge variable**

A variable inserted onto a layout that displays values from a local or global variable onto the layout of the current record. You see the merge variable value in Browse, Find, and Preview modes, and when you print records.

**Modal window**

A window that requires user action before users can continue working in FileMaker Pro. Use a modal window to display alert messages or to collect information from users.

**Mode**

In FileMaker Pro, the four different environments (Browse, Find, Layout, and Preview) that you use to work with your file.

**Mode pop-up menu**

A pop-up menu at the bottom of the document window from which you can choose a mode (Browse, Find, Layout, or Preview). This menu is available in all modes.

**Multi-key field**

A match field that contains more than one value, each on a separate line. A multi-key field can be used in one table involved in a relationship, to match several possible values in the match field of the other table.

**Multimedia**

Files that combine media, like text, graphics, sound, animation, and video.

**N****Navigation part**

A layout part that appears above a title header part (*top navigation part*) or below a title footer part (*bottom navigation part*), and can contain fields, objects, and other controls to help users navigate a layout or solution. Navigation parts do not print or preview.

**Network protocol**

A network protocol (for example, TCP/IP) is a set of rules that govern how computers exchange messages on a network.

### New Layout/Report assistant

The New Layout/Report assistant guides you through creating a layout or report according to options you choose. In Layout mode, click **New Layout/Report** in the status toolbar, or choose **Layouts** menu > **New Layout/Report**.

## O

### Object

On a FileMaker Pro layout, an object is a discrete entity or shape that you can select, move, modify, delete, or name. Lines, fields, buttons, popovers, panel controls, portals, imported graphics, blocks of text, tab controls, and web viewers are objects. Some objects, such as portals, have multiple components; for example, a portal row is a component of a portal.

### Object component

An element of an object, such as a portal row of a portal or a slide panel of a slide control.

### ODBC

An API that uses SQL statements to access data from, and exchange data with, many database management systems. FileMaker Pro uses ODBC drivers to share data (as a data source) and to interact with data from other applications (as a client application).

### 1-away relationship

A correspondence between database tables in which two tables are directly related to each other, with no other tables between them.

### One-to-many relationship

A correspondence between data in database tables in which one record in the first table is related to more than one record in another table.

### One-to-one relationship

A correspondence between data in database tables in which one record in the first table is related to one record in another table.

### Operands

Components of a formula. For example, in the formula  $\text{Quantity} * \text{Price}$ , Quantity and Price are the operands.

### Operators

In calculations, symbols that indicate how to combine two or more expressions. These include the standard arithmetic operators (+, -, /, \*), logical operators that set up conditions that must be met to make a value true or false (AND, OR, XOR, and NOT), and find operators (<, =, @) that help you limit the records defined in a find request.

In the relationships graph, symbols that define the match criteria between one or more pairs of fields in two tables. These include: != (not equal), > (greater than), < (less than), = (equal), <= (less than or equal to), >= (greater than or equal to) and x (all rows, or cartesian product).

## P

### Panel control

Panel controls include the tab control and slide control. Individual panels of these controls are tab panels and slide panels, respectively.

### Parent script

A script that defines script parameters and can call other scripts.

**Part label**

In Layout mode, the label that appears at the left or side of the bottom dividing line of each layout part. By dragging it up or down, you can use the part label to resize a part. You can also open the Part Definitions dialog box by double-clicking the label.

**PHP (PHP: Hypertext Preprocessor)**

An open-source programming language primarily used in server-side application software to create dynamic web pages. FileMaker Server lets you publish data from FileMaker Pro files on customized web pages created with PHP.

**Placeholder text**

A type of field label that displays within a field. Placeholder text can be a field name, other text (such as instructions), or the result of a calculation. In Layout mode, placeholder text is indicated by a Placeholder Text badge on a field.

**Plug-in**

Software that extends the capabilities of an application in a specific way.

**Popover**

A layout object that can contain other layout objects. Popovers include a content area (where objects are placed) and can include a title. You open a popover by clicking a popover button. Popovers reposition on the screen as needed to stay in view.

**Popover button**

A layout object that opens a popover.

**Port**

A pre-assigned number that indicates a “logical connection place” where a client (such as a web browser) can connect to a particular server application on a networked computer. Port numbers range from 0 to 65536. Port 80 is the default port for HTTP services such as FileMaker Pro web publishing, but you can use another port number if 80 is already in use by another server application.

**Portal**

For relational databases, a layout object in one table where you place one or more related fields to display in rows the data from one or more related records.

**Preview mode**

The FileMaker mode in which you see how layouts will look when they're printed.

(Use Browse mode to enter and edit your information; use Layout mode to design how your information is displayed. Use Find mode to find records that match search criteria; use Preview mode to display how your records will print.)

**Primary file**

In a FileMaker Pro Advanced runtime solution, the file that connects all of the auxiliary files and opens when you start the runtime application. From the Developer Utilities in FileMaker Pro Advanced, you can select a primary file for solutions that have more than one file.

**Privilege set**

A defined set of permissions that determines a level of access to a file. You can define as many privilege sets as you like for a file. There are three predefined privilege sets: Full Access, Data Entry Only, and Read-Only Access.



## Q

### Query

Retrieving, manipulating, or modifying data from a data source by sending SQL statements. Also, requesting, and then receiving, data from a DBMS. You can also add, edit, format, sort, and perform calculations on your data using queries.

### Quick find

In Browse mode, searches records across multiple fields on a layout.

## R

### Read-Only Access privilege set

One of the three predefined privilege sets that appear in every file. The Read-Only Access privilege set allows read access to the records in a file, but not write or design access.

### Record

One set of fields in a database table. Each record contains data about a single activity, individual, subject, or transaction.

### Recover

If a file is damaged (for example, from an unexpected quit during a hard-drive update), you can attempt to recover the file. FileMaker Pro preserves as much data (the file's schema and structure and its tables, records, layouts, scripts, and field definitions) as possible.

### Recurring import

A method of setting up a file to automatically import read-only data from another file. With recurring import, imported data refreshes when you open the file, view the layout that contains the imported data for the first time during a FileMaker Pro session, or run a data update script.

### Recursive script

A script that calls itself.

### Related field

For relational databases, a field in one table that is related to a field in another table (or to a different field within the same table). If a relationship is defined between two tables (even through another table), data in fields in one table can be accessed from the other table.

### Related record

A record in the related table whose match field (according to the relationship used) contains a value that's equal to the value in the match field of another table.

### Related table

For relational databases, the table that contains the data you want to access and work with in the current table. For lookups, the table that contains the data to copy.

### Relational database

A group of one or more databases that, when used together, contain all the data you need. Each occurrence of data is stored in only one table at a time, but can be accessed in any table, either in the same file or from a related file. Data from another table or file is displayed in the current table without being copied, and the data changes whenever the values in the other table or file change.

## Relationship

Relationships provide access to data from one table to another. Relationships can join one record in one table to one record in another table, one record to many other records, or all records in one table to all records in another table, depending on the criteria you specify when you create the relationship in the relationships graph.

## Relationships graph

In the Relationships tab of the Manage Database dialog box, you can see the occurrences of tables both in the current file and from any external, related files. In this relationships graph, you join tables and change relationships between fields in different tables.

When you create a new table, a visual representation, or occurrence, of the table appears in the relationships graph. You can specify multiple occurrences (with unique names) of the same table in order to work with complex relationships in the graph.

## Repeating field

A field containing multiple, separate values.

## Report layout

A predefined layout type for setting up reports. You can create a layout with simple rows and columns of data (as in a list), or a complex report with grouped data (subsummary reports). The fields that you specify appear in columns across the screen or page in one line. Field names are in the header part and the footer part is blank.

## Report with grouped data

A subsummary report that you create using the Report layout type. Reports with grouped data can include totals and subtotals.

## Row

When a layout is viewed in Table View, a row corresponds to a record.

## Runtime solution

A solution that does not require FileMaker Pro or FileMaker Pro Advanced in order to be used. In FileMaker Pro Advanced, use the Developer Utilities to bind a primary file and any auxiliary files to produce a stand-alone runtime solution.

# S

## Schema

In database terminology, a schema is the organization of the tables, the fields in each table, and the relationships between fields and tables.

## Screen stencils

In Layout mode, nonprinting guides that help you design layouts for iPad, iPhone, iPod touch, or computers with different screen resolutions.

## Script

One or more instructions (script steps) that you define to automate repetitive or difficult tasks. You create and manage scripts using the Script Workspace window. You run a script by clicking its button, choosing its menu command, calling it from another script or a plug-in, or running it at startup or when a file closes.

## Script Debugger

A FileMaker Pro Advanced tool for debugging FileMaker Pro scripts.

## Script step

A command that you include in a script.

### Script trigger

A mechanism that causes a specified script to run when a particular event occurs.

### Search criteria

In Find mode, the values and operators you specify to locate records. For example, if you type ABC Travel in the Vendor field, FileMaker Pro looks for and returns all records that have this name in the Vendor field.

### Security

The protection that's placed on a file. Security includes various types of accounts to authenticate users, levels of privilege sets to determine what can be done with a file, and authorization of other files to create references to the current file (including its tables, layouts, scripts, and value lists). Security also includes extended privileges, which determine the data sharing options that are permitted by a privilege set.

### Segment

A component of a button bar object. Each segment can be defined as a button or popover button.

### Self-join

A relationship between fields in the same table. This creates another occurrence of the table in the relationships graph.

### Separator

A line within a menu that separates or groups menu items. A separator can also be the character used to separate parts of a date, time, or number, or the semicolon (;) used to separate parameters in a function definition.

### Serial number

A unique number entered by FileMaker Pro for each record. You can tell FileMaker Pro to automatically enter a serial number for each record by setting the Auto-Enter options in the Options for Field dialog box. You can also serialize records in Browse mode by choosing **Records** menu > **Replace Field Contents**.

### Shared file

A file for which sharing has been enabled, which permits users to access the file over a network. FileMaker Pro, FileMaker Pro Advanced, and FileMaker Server each support one or more of the following ways to share files: FileMaker Network sharing, which permits multiple FileMaker Pro or FileMaker Go users to use a file simultaneously; publishing of files to web browser users via FileMaker WebDirect or Custom Web Publishing; and sharing of data with other applications via ODBC/JDBC.

### Shared ID

In FileMaker Pro Advanced, a case-sensitive ID from 1 to 32 characters long that links encrypted files in a multi-file solution.

### Shortcut

Also known as keyboard shortcut. One or more keys that users can press to perform tasks.

### Shortcut menu

Use to edit objects or data quickly by choosing commands from a shortcut, or context, menu. Commands vary depending on the mode you're using, the item the cursor is over, and whether an item is selected.

To display a shortcut menu, right-click (Windows) or Control-click (OS X) the item.

## Slide control

A layout object made up of one or more slide panels, allowing you to organize fields and other objects within each slide panel's borders.



## Slide panel

A component of a slide control. The slide panel is the area displayed when a dot in a slide control is selected. You can place objects such as lines, fields, buttons, portals, imported graphics, blocks of text, tab controls, slide controls, and web viewers in slide panels.

## Slider

In the status toolbar, the navigation control for quickly moving to a record in your file based on its location in the file. For example, in Browse mode, move the slider to the left to go to the first record and to the right to go to the last record.

In Browse mode, moving the slider changes the current record. In Find mode, moving the slider changes the current find request. In Layout mode, moving the slider changes the current layout. In Preview mode, moving the slider changes the current page.

## Sliding objects

Objects that move together to close gaps left by entries in adjacent fields.

Set sliding in Layout mode, in the Sliding & Visibility area of the Inspector.

If you don't see the Inspector, choose **View** menu > **Inspector**.

## Snapshot link

A found set of records that is saved in the FileMaker Pro Snapshot Link (FMPSL) format, with the filename extension .fmpl. A snapshot link captures and preserves the found set as it was when you performed the find request. You can also email an FMPSL file to another person.

## Solution

A file or a set of files containing database tables, layouts, scripts, and associated data. A solution solves one or more specific problems, such as tracking customers or invoices.

## Sort order

The sequence for rearranging records. Records are sorted by the first field in the sort order list, then the second, and so on. Values within each field are sorted by the order specified (ascending, descending, or custom).

## Source file

The file from which you bring data during importing or exporting, or the file from which you add a table to the relationships graph.

## Source table

The table upon which one or more table occurrences in the relationships graph are based. The source table is the table defined in the Tables tab of the Manage Database dialog box.

## SQL

A structured programming query language that controls and interacts with a DBMS.

## Stacking order

The order in which objects overlap on a layout. In Layout mode, you can change this order by cutting and pasting objects or by clicking **Bring to front**, **Bring forward**, **Send to back**, or **Send backward** in the Arrange & Align area of the Inspector.

If you don't see the Inspector, choose **View** menu > **Inspector**.

## Standard form layout

The default layout, with all fields arranged on separate lines in the order they were defined. The body part is only as tall as it needs to be to include all the fields in the file. This layout includes header and footer parts. (In previous versions of FileMaker Pro, a Standard Form layout was a predefined layout type.)

## Starter Solution

A pre-designed and formatted FileMaker Pro file or web page that you can copy and change for your own use.

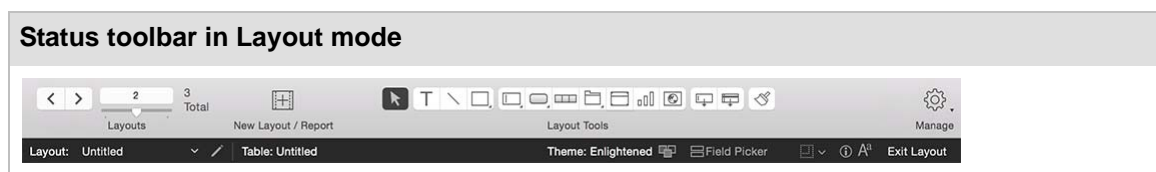
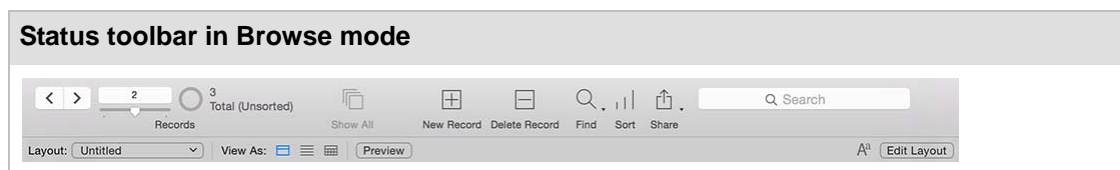
## Startup script


A script that automatically runs when a file is opened. You can script such things as setting system formats to the user's formats or setting a file to be shared in a startup script.

You specify a startup script in the File Options dialog box.

## Status toolbar

The area across the top of the document window that displays navigation controls, customizable buttons, and a layout bar for working with layouts. In Layout mode, it includes layout tools.



If you don't see the status toolbar, click the status toolbar control button  at the bottom of the document window.

## Structure

In FileMaker Pro, the organization of file elements such as scripts, layouts, value lists, privileges, and so on. You interact with a file's schema through its structure.

## Style

A collection of attributes, such as font, color, line style, text alignment, and so on, that determine the appearance of a layout.

## Submenu

A menu that extends from another menu item.

## Sub-script

A script that is called from another script.

## Subsummary parts

Use summary parts to view and display information from one or more records. You place a summary field in a summary part to display a summary of information for each group of records sorted on the break field. You can add one or more subsummaries above (leading) or below (trailing) the body.

## Subsummary value

Aggregate values for different categories of data within a field. For example, a subsummary value can be the total of employees for each department.

## Summary field

A field that contains the result of a summary calculation of values across a group of records.

## Supplemental field

A FileMaker calculation field or summary field that you can append to ODBC tables in order to do calculations on the external data while working in FileMaker. The calculations are not stored and you are not changing the schema of the ODBC table.

## System formats

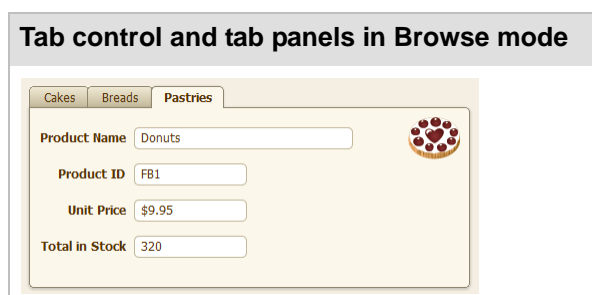
Settings that determine how your operating system displays and sorts dates, times, numbers, and currency. (For information on setting and changing system formats, see Windows Help and Support or OS X Help.)

If the system formats are different on your computer from those on the computer on which the file was created, the first time you open the file, FileMaker Pro asks if you want to use the system's settings or the file's settings. When you format fields, you can use the Inspector to have data displayed according to the current system formats.

# T

## Tab control

A layout object made up of one or more tab panels that allows you to organize fields and other objects within each tab panel's borders.



## Tab order

The order in which you move from field to field in a record. In Layout mode, you can define a custom tab order and include buttons, tab controls, and web viewers in the tab order.

### Tab panel


A component of a tab control. The tab panel is the area displayed when a tab in a tab control is selected. You can place objects such as lines, fields, buttons, portals, imported graphics, blocks of text, tab controls, slide controls, and web viewers in tab panels.

### Table

A collection of data pertaining to a subject, such as customers or stock prices. A database contains one or more tables, which consist of fields and records. When you create a new table, a visual representation, or occurrence, of the table appears in the relationships graph. You can specify multiple table occurrences (with unique names) of the same table in order to work with complex relationships in the graph.

### Table View

Displays multiple records in a tabular format like a spreadsheet. Each record appears in a row, and each field appears in a column. To select this view, click **Table View** in the layout bar.

If you don't see the status toolbar, click the status toolbar control button  at the bottom of the document window.

In Browse mode, you can use Table View to create, modify, and delete fields; choose field types; add, delete, and sort records; or create a chart or dynamic report.

### Target file

The file into which you bring data during importing or exporting.

### TCP/IP (Transmission Control Protocol/Internet Protocol)

The basic communication protocol that is the foundation of the Internet.

### Template

A predefined website that you can select in the Web Viewer Setup dialog box to help you create a web viewer quickly.

### Text baseline

In Layout mode, the guideline that appears at the base of the text in a field or text block. Text baselines can be solid, dotted, or dashed. If you want text baselines to also appear in Browse and Find modes, select **Text baselines** in the **Appearance** tab of the Inspector.

If you don't see the Inspector, choose **View** menu > **Inspector**.

### Text expression

Any expression that returns a text result. For example, a text expression can be a constant ("London"), a field reference (Status), or a calculated value (Rightwords(Lastname;1)).

### Timestamp

A field type combining date and time that is compatible with the ODBC requirement for the SQL format [yyyy.mm.dd hh:mm:ss.sss].

### Tooltip

A small box that displays text when a user moves the cursor over a layout object. Tooltips display in Browse, Find, and Layout modes.

## U

### Unicode

A worldwide standard that, in one code page, provides a unique number for every character in human languages, no matter what the platform, software program, or operating system.

**Unit of measure**

In Browse and Layout modes, you can set the unit of measure to points, inches, or centimeters.

**Unstored calculation**

A calculation field with a result that is only calculated when the value is needed, for example, to browse or print. In most cases, FileMaker Pro makes a field stored when you define it, but you can change the storage type to unstored.

**URL (Uniform Resource Locator)**

A web address, which consists of a protocol, a host name, and optionally a port, a directory, and a filename. For example, `http://www.filemaker.com/`, `ftp://12.34.56.78:80/myfiles/`, or `fmp://mywebsite.com/sample.fmp12`.

**V****Value list**

To save time and ensure accuracy during data entry, define frequently used text, number, date, or time values as a value list. When you enter data, you can choose from the list of defined values.

You can format value lists to display in a drop-down list or pop-up menu, or as checkboxes or option (radio) buttons. The values in a value list can be user-defined or based on the values in a field in the same file or in a different file. You can also define relationships for use with value lists, to access and display particular related values. Another option is to use a value list from another file.

**Variable**

In a calculation, a symbol or name that represents a value. Use the Set Variable script step to specify the name, value, and repetition of the variable. Names prefixed by \$ are local variables available only within the current script. Prefix the name with \$\$ to make the variable available throughout the current file (global). Local and global variables can have the same name but they are treated as different variables.

**View**

An arrangement of your data primarily useful for onscreen manipulation. In Browse mode, Find mode, or Preview mode, Form View displays individual records, List View displays records in a list, and Table View displays records in a spreadsheet-like table format.

**W, X, Y, Z****Web address**

The calculated expression that you enter in the Web Viewer Setup dialog box. A web address is not equivalent to a URL that a web user could enter in a web browser.

**Web browser**

An application that you can use to view web pages/sites on the World Wide Web or an intranet. Browsers download the web pages onto the viewer's computer.

**Web page**

An HTML document displayed on the Internet or on an intranet.

**Web server**

A computer that is connected to the Internet or an intranet and has a web server application installed on it. Web server applications deliver web pages and associated files to web browsers.



**Website**

One or more web pages connected by links and displayed on the Internet or on an intranet.

**Web user**

Someone using a web browser to access a FileMaker Pro file published on the World Wide Web or an intranet.

**Web viewer**

A layout object that allows you to display information from websites based on data in your file.

**World Wide Web**

An interlinked collection of web pages residing on web servers, and other documents, menus, and files, which are available via URLs.

**X-axis data**

In a column, stacked column, line, and area chart, the data series you are comparing (for example, company name).

In a bar or stacked bar chart, the data series you are measuring (for example, annual sales).

**XSLT (Extensible Stylesheet Language Transformations)**

XSLT (XSL Transformations) is a subset of XSL (Extensible Stylesheet Language) that is used to transform, or change, the structure of an XML document into a different document format. For example, you can use an XSLT style sheet to transform an XML document into an HTML or TXT document.

**XML (Extensible Markup Language)**

Instead of being a rigid file format, XML is a language for defining agreed-upon formats that groups can use for exchanging data. Many organizations and businesses are using XML to transfer product information, transactions, inventory, and other business data.

FileMaker Pro can export XML data that can then be used, for example, by spreadsheet applications, data charting applications, and enterprise SQL databases. FileMaker Pro can also import XML data.

**Y-axis data**

In a column, stacked column, line, and area chart, the data series you are measuring (for example, annual sales).

In a bar or stacked bar chart, the data series you are comparing (for example, company name).