

## **Pile Version 3 Help Contents**

[Description](#)

[What's New In Version 3](#)

[Rules](#)

[The Screen](#)

[Playing The Game](#)

[Strategies](#)

[Hints](#)

[AutoPlay - An Introduction](#)

[AutoPlay Options](#)

[High Scores](#)

[Registering Pile - Why?](#)

[Registering Pile - How Much?](#)

## **Description**

*Pile* is a card game, based loosely on a form of Solitaire. A single pack of cards (no jokers) is dealt, face up, in to 13 piles of four cards each, leaving two empty piles. The player then moves the cards around to get them into a finishing position. Any card may be moved to an empty pile. If the destination pile is not empty, it must have less than four cards, and the top card must match the value of the card that is being moved. The game is over when the cards are sorted into piles containing cards of the same value only.

## **What's New In Version 3**

Pile has been completely rewritten. The basic principles have remained the same, but the implementation has changed completely. The most immediate differences you will see are

**Full visual dragging**

**Save/Load games**

**63000 new games**

**Mega-Smart Hints**

**Smarter Fast-Moves**

**AutoPlay**

**Redesigned playing area**

**Integrated registration**

**Two different final  sequences**

**on-line Help**

## The Screen

The main tableau is divided up into 16 squares; 4 rows and 4 columns. Each square can contain cards, except for the final square (bottom-right) which contains the game information and speed-buttons. The speed buttons (layout courtesy of Stu) allow you to control the game more fluently than by using the menu bar. There are 4 buttons, and 3 display areas. The button with a question mark ('?' ) gives you a hint for your next move. The other buttons behave exactly as their menu counterparts. The display areas contain the number of the game in question, how long you've been playing, and how many moves you've had. Double clicking on the game number area lets you deal a specific game (like 'Deal' from the menu bar). Double clicking on other areas has no effect.

## Playing The Game

The player moves the cards around until either no legal moves are left, or, a finishing position is obtained. The player can undo any number of moves, restart the game, ask for a hint, or deal a new game. If no legal moves are left, the player sees a message box to that effect.

Drag the cards around with the mouse to move them

You can drag more than one card at a time

Double click on a card to move it to best location (without using AutoPlay)

Right clicking in the playing area undoes the last move

Press 'Undo' to undo the last move

Press the '?' button to see a hint

Press 'Restart' to reset the timer, and re-deal the current game

Press 'New' to deal a random game

Double-click the Game display area to deal a specific game

Save and Load games using the menu bar entries 'Save' and 'Load'

## Rules

Any card may be moved to an empty pile

Piles can hold a maximum of four cards

A card can be moved to any non-empty pile that has less than four cards, if the top card in the pile matches the value of the card to be moved

=

## Strategies

It is very hard to give a simple strategy that will always work, but some techniques tend to work better than others. My main strategy is to always keep an empty pile. Since this isn't possible, I never fill an empty pile unless I can empty it again within a couple of moves. Also never move a card to an empty pile IF a card of the same value is already at the bottom of a different pile. It is more efficient to never move the bottom cards, but not always possible.

I think if a game is playable, then it is playable in less than 50 moves. My personal best is 34 moves, but AutoPlay has done game #21501 in 33 moves. Less than 40 moves is quite respectable, less than 38 is hard to beat.

## Hints

Selecting hint from the menu, or pressing the '?' button will force the computer to generate a move based on the current Hint lookahead parameters. Previous versions of Pile simply generated the first legal move. This version will lookahead to select the best possible move, based on the number of moves it can lookahead. If a suitable move is found, then the cards involved will flash. You can control how many moves Pile will lookahead for a Hint using the Options dialog box.

I use Hints to show me a move when I can't see *any* legal moves left, but the 'You're Stuck' box hasn't appeared.



## **AutoPlay - An Introduction**

Version 3 of Pile contains an extremely powerful AutoPlay engine. Using a sophisticated heuristic algorithm, the computer will search through all the possible moves, and select the best one. The algorithm is necessarily heuristic (as opposed to deterministic) since to evaluate all the moves in a single game would take many times the lifetime of the Universe, even though Pile can evaluate several thousand moves per second (about four thousand on my machine, a 486DX/2 66Mhz, 32Mb RAM). So Pile decides which moves are likely to bring about a successful conclusion of the game, and ignores the others.

AutoPlay is intended to give some guide as to how well you play a particular game. Most players aren't interested in the time taken to complete a specific game, rather it's the number of moves taken that is the mark of a good player. AutoPlay will let you see if the computer can achieve a result in less moves than you.

## AutoPlay - Options

AutoPlay's success depends on how many moves it looks ahead. Since most games can be completed (if, indeed, it is *possible* to complete) in less than 50 moves. Setting the number of moves to lookahead to 50 would generate (in my opinion) the absolute minimum number of moves required to complete a game. Unfortunately, this could take many millions of years to complete. Even looking ahead a few dozen moves can take months. But looking ahead three moves can be done in seconds. Four or five moves usually finds a good solution (less than 42 moves). AutoPlay is configurable, so set the level you are happy with. If AutoPlay finds two moves which it considers are equally good, by default it will take the first one. Checking the Take Last Move box instructs AutoPlay to take the last one. Some games are not solvable unless this box is ticked, some games are not if it is.

AutoPlay is also used in the Hint function. Most players will trade superior move quality for speed when it comes to Hints, so Pile allows the player to select two sets of AutoPlay parameters, one for Hints, and one for real AutoPlay. AutoPlay will also display progress bars to let you know how far it has proceeded. Each progress bar represents a further level in the lookahead process. For instance, if you configured AutoPlay to lookahead 10 moves, and asked for 4 progress bars, then the first bar represent how many of the possibilities for the first move have been evaluated. The second bar represents the second move, etc. Drawing the progress bars does take time, and so you will probably want to set AutoPlay so that it draws the minimum number of bars consistent with you knowing how far it's progressed. On my machine, I usually set it to display just one bar, unless I'm looking ahead more than 10 moves, in which case I use # lookaheads - 5.

The AutoPlay window also displays the total number of moves it has checked out. This is updated about every second. I use 32 bits to hold this number, so, if the total goes over four thousand million, then the counter will wrap. At four thousand moves/second, this should take about 10 days; in practice, some moves are a lot quicker to check than others, and I've seen it wrap after about 12 hours.

## High Scores

When Pile maintains a list of the top Pile players. The game number, players name, moves taken, and time taken are all recorded. You can view the hall of fame using the menu bar, and sort the list of top players by various criteria, depending on how you feel. The second button shows the criteria by which the players will be sorted when you click it.

If you complete a game in record time, you can enter the hall of fame. Be aware however, the games in which you have used AutoPlay are not credited to you, but to a fictional player named, oddly enough, AutoPlay. If this is really your name, and you want to show all your friends what a superb Pile player you are, then I'm sorry, but there's nothing I can do.

Only the Top Ten players are displayed, although Pile keeps records of all successful games. This is so players with, for instance, a brilliant time, but less than satisfactory number of moves can still be in the Hall of fame. Purging the hi-scores from time to time will discard all but the top 25 times and moves, and keep things neat and tidy and responsive.

## Registering Pile - Why?

Previous versions of Pile were *freeware*. This version is **NOT**. It's *shareware*, which means if you play Pile more than a few times, then you should send me some money. If you send me enough, then I will register you as a Pile player, and send you the codes that will let you use register your copy. If you don't send enough, then you won't be registered, but at least you're conscience will be eased (slightly).

The annoying registration screen at the start of the game will disappear, and you get your name in the About dialog. Got to be worth it.

## Registering Pile - How Much?

Registration costs just £15 (UK pounds Sterling), which is not very much at all. If you can't get Sterling, then US\$20, or Dm30 will do. But I really do prefer Sterling if you can manage it. If you must send a cheque, it **MUST** be drawn on a UK bank, otherwise it's practically useless to me. If you can't get US, German, or UK cash, just send some of your country's bank notes, and *IF* I like them, I'll add them to my collection, and register you.

If you send me a bug report, good idea, or any general helpfulness, then you may well get a free registration. It depends.

You are free to distribute the *unregistered* copy of Pile however you like, as long as you distribute the ENTIRE package, without any modification, and don't charge for it (except for costs). In fact Pile contains sophisticated checks that ensure you distribute the whole package. It will not run if you change anything, or miss out a file.

Needless to say, if you distribute *registered* versions of Pile, then all sorts of terrible things will happen. Armed Police searches, eternal torture, financial ruin, dreadful turmoil culminating in strawberry jam oozing from your floppy drive (thanks Arne) etc. Probably.

When you want to register, please send me the money, together with a note of where you got Pile, **AND** the serial number from the opening registration box. Send funds to

**Reg Skelton**  
**Horley**  
**RH6 9XU**  
**UK**

If you are having any difficulties with Pile, it would help if you give me as much detail as you can. Problems etc. are best handled through e-mail. You can get me at

**CIS: 70630,1062**  
**internet: rts@skelton.cityscape.co.uk**

## Registration Help

Using the registration dialog box, type in your name, serial number and checksum *exactly* as supplied by me. If you have filled each field correctly, then pressing 'OK' will mark your copy as registered.

Of course, if you have not sent me any money, you will not be able to register your copy. Simply press 'CANCEL' , and play away.

## **Other Stuff**

Pile is available in 2 flavours. 16-bit, for Windows 3.1, and 32-bit for Windows NT, Win32, and Windows '95 (all being well). The 32-bit one runs native under NT, and on my machine is about 10% faster (especially noticeable on AutoPlay). Saved games and the high score are interchangeable between versions. Both should be available from where you got this copy. I'll email you a copy if you can't find the one you want. Both versions cost the same to register, which is pretty astonishing bearing in mind how more tricky it makes things for me.

Pile was written using Brief (still the best editor by miles), Watcom C/C++ 10a (still the most flexible compiler), and lots of my own tools. This Help file was created using MS Word 6, and MS Help Compiler.

If you have any problems, suggestions, money, or jokes, you can contact me at 70630,1062 on CompuServe, or [rts@skelton.cityscape.co.uk](mailto:rts@skelton.cityscape.co.uk). Im also interested in your best scores. Maybe Ill distribute the best ever world-wide top scores with future versions.

Copyright 1994-5 Reg Skelton

