

PasswordSafe State Machine

PasswordSafe's frame window and the DB can exist in the following combinations, which gives us 9 possible states pwsafe application could be in, at any point.

Y => valid combination

N => Invalid combination

(n) - The state number used below

	DB States		
Frame Window	Closed	Unlocked	Locked
Uncreated	Y(1)	N	N
Shown	Y(3)	Y(2)	N
Hidden	Y(5)	Y(7)	Y(6)
Minimized	Y(4)	Y(8)	Y(9)

Descriptions of various states

1. Not logged in

This is the first safe combination entry prompt, without even having created the frame

2. Unlocked

Frame window is displayed (restored) and the DB is unlocked.
Red icon in systray.

3. Closed

Frame window is displayed (restored) and DB is closed.
Black icon in systray (colour can be changed via Manage Options).

4. MinimizedClosed

Frame window is minimized and DB is closed.
Black icon in systray (colour can be changed via Manage Options).

5. HiddenClosed

Frame window is closed. DB closed as well.
Black icon in systray (colour can be changed via Manage Options).

6. HiddenLocked

Frame window is hidden. DB is locked.
Green icon in systray.

7. HiddenUnlocked

Frame window is hidden. DB is unlocked.

Red icon in systray.

8. MinimizedUnlocked

Frame window is minimized. DB is closed.

Black icon in systray (colour can be changed via Manage Options).

9. MinimizedLocked

Frame window is minimized. DB is locked.

Green icon in systray.

Events are various things that can happen either by user's actions or automatically (like a timer), that can change the state of the app. The possible events are:

1. OpenDB

An OpenDB event is fired when user selects a PasswordSafe DB and enters the correct safe combination. There are various points at which it can happen:

1. Initial Safe Combination Entry dialog
2. File/Open menu item
3. Selecting one of the recently used databases from the file menu

2. CloseDB

Users can choose to close the DB either from File menu, or the systray icon.

3. Minimize

Users can decide to minimize the app either from sysmenu in titlebar, or the systray icon. Depending on the "Lock on Minimize" setting, the DB can get locked

4. Restore

The "Restore" item in systray menu. Also, a double-click on the systray menu. This menuitem is active even for unlocked databases.

For locked databases, this event is generated if and after the user enters the correct safe combination.

5. Autotype

Users can choose to autotype an entry in the tree/grid, or from the systray menu's "Recently used Items". Depending on "minimize after autotype" and "Put icon in system tray" settings, the app can minimize or hide. Depending on "Lock on minimize" setting, the DB can get locked as well.

6. CloseWindow

Users can close the frame window by clicking on the 'X' in the title bar. If "Use System Tray" is set, the app is hidden. It is locked as well if "Lock on Minimize" is also set. If "Use System Tray" is not set, pwsafe quits.

7. Unlock

Users can unlock the DB from the system tray menu. If the frame was hidden, it stays hidden while the systray icon turns red. If the frame was minimized, it gets restored.

8. Idle timeout

If the user doesn't interact with pwsafe for a long (configurable) time, a timer locks the DB.

If "Use System Tray" is set, the frame hides and shows an icon in the system tray. Otherwise, the frame is minimized. There's no icon in system tray in the latter case.

	States	Events							
		OpenDB	CloseDB	Minimize	Restore	Autotype	Close Window	Unlock	Idle Timeout
1	Not logged In	Unlocked	X	X	X	X	Quit	X	X
2	Unlocked	Unlocked	Closed	Lock On Minimize? Minimize Locked Minimize Unlocked	Unlocked	UseSysTray? MinimizeOn Autotype? LockOnMin? MinLocked MinUnlocked HiddenLocked HidUnlocked	Use SysTray? LockOnMin? HidLocked HidUnlocked Quit	X	Use Systray?
3	Closed	Unlocked	X	Minimized Closed	Closed	X	Use Systray? Minimized Closed Quit	X	X
4	Minimized Closed	X	X	X	Closed	X	X	X	X
5	Hidden Closed	X	X	X	Closed	X	X	X	X
6	Hidden Locked	X	Hidden Closed	X	Unlocked	X	X	Hidden Unlocked	X
7	Hidden Unlocked	X	Hidden Closed	X	Unlocked	Hidden Unlocked	X	X	Hidden Locked
8	Minimized Unlocked	X	X	X	Unlocked	Minimized Unlocked	Use Systray? Hidden Locked Quit	X	Use Systray? Hidden Locked Quit
9	Minimized Locked	X	X	X	Unlocked	X	Quit	Unlocked	X