Shutdown Items 3.0 User's Guide
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• General Description

Shutdown Items version 3.0 is a collection of 3 small applications with the following features (Note: System 7 is required!):

•Program your mac to shutdown (or restart) automatically based on various conditions, including once a day, once a week, minutes after startup, or minutes after inactivity.
•During a system shutdown, launches any items (sounds, applications, etc.) that are contained in your "Shutdown Items" folder (this folder is found in your System folder, just like the "Startup Items" folder) . Useful for automatic backups or lab utilities such as RevRDist.
•Background-only operation doesn't patch any system traps and runs invisibly to the user
•You may shut down remote macs over a network
•You may empty your trash automatically before shutdown

Note to users of previous versions of Shutdown Items:
In this version of SDI, unlike version 2.41, Text and PICT files are not treated differently and displayed in a special window, and neither are QuickTime movies. The Remote Launch function is no longer implemented. Sorry about removing these features; this was a near total rewrite, and I had to prioritize the features according to the needs of most registered users. They might be added in a future version...

• Installation and Setup

Contents of Shutdown Items 3.0 package:

SDI Engine - This is the application that does all the work. It MUST be running to use Shutdown Items. This is a special kind of application, a background-only application. Like a system extension, it runs invisibly to the user. In fact, the only way to interact with it is to use AppleEvents (you may use SDI Configure to do this). Unlike a system extension, it doesn't patch any traps (no extension incompatibilities!), and you can start it and stop it at any time, without a system restart (NOTE: due to a bug in the Finder, when you quit SDI Configure, the icon still looks like it is running). You may want to place this inside your Startup Items folder so that it is always there.

SDI Notify - When you set up an automatic shutdown, you will probably want to be warned ahead of time "just in case". SDI Notify gets launched by SDI Engine right before the automatic system shutdown so that you can be warned with a dialog box, and you can even delay or cancel the shutdown at this time (since SDI Engine is always invisible, it can't do this itself). SDI Notify should be placed in the same location as SDI Engine. If you launch SDI Notify yourself, it does nothing but sit there waiting for SDI Engine to give it the word, so it is OK to leave it running. If you quit SDI notify, it will be re-launched by SDI Engine when necessary.

SDI Configure - This is a regular application that you may use to set up and configure Shutdown Items. Once you have set things up, there is no need to keep it running. By using SDI Configure, you may "kill" SDI Engine if you so choose.

     SDI Engine and SDI Notify function much like the standard Backgrounder (which waits for you to print something in the background) and Print Monitor (which can notify you if a printing problem occurs).

Lab Administrators: Once you have configured Shutdown Items one time, you can then just copy SDI

Engine and SDI Notify, along with the Shutdown3 Prefs file (found in Preferences folder), to all the lab macs. Keep one copy of SDI Configure someplace safe for only you to use. Note that SDI Notify is unnecessary if you do not use the auto shutdown feature.

Installation Summary:

To simply launch items in Shutdown Items folder, just place SDI Engine in your Startup Items folder.

If you will be doing automatic shutdowns, also place SDI Notify in your Startup Items folder. By placing it here and having it running all the time, you eliminate the possibility that not enough memory will be available to launch SDI Notify when it is time to give the shutdown notification.

Use SDI Configure only to change settings or for remote shutdowns.

• When You Shut Down

When a manual shutdown (or restart) takes place and SDI Engine is running, any item you have in the Shutdown Items folder will be launched. The effect will be the same as if you double-clicked the file from the Finder. **If the OPTION key is held down, no action is performed and SDI Engine simply quits**. If you are doing a manual restart, and don't want to launch your shutdown items, then just hold down the OPTION key until your macintosh restarts.

SDI Engine works in a safe manner. Automatic shutdowns are performed by sending an AppleEvent to the Finder, which then does the real work. Therefore, an automatic shutdown works just as if the user chose "Shut Down" from the "Special" menu in the Finder: all running applications are notified, and you are given the opportunity to save any unsaved open documents.

Sometimes, depending on your situation, you may not want the possibility of other applications halting the shutdown process (like when they have unsaved documents opened, or when they put up dialogs that the user must respond to). You have the option of choosing an "unstoppable shutdown" to handle these circumstances. An unstoppable shutdown does not send an AppleEvent to the finder, but calls the mac toolbox shutdown procedure directly, bypassing the notification of other applications. This method is still better than simply cutting off power, but nonetheless should be used with care.

Invisible files are ignored if found inside the Shutdown Items folder. This situation can occur if you give your folder a custom icon (the Finder places an invisible file called "Icon" inside any folder with a custom icon).

There may be a delay after any shutdown items are launched, before actual shutdown occurs. You can set this delay by clicking "More Options" with SDI Configure. This option is useful if you want to allow your shutdown applications time to do their thing, and then shutdown automatically. Or, you can instruct SDI Engine to simply wait until all applications launched during shutdown have quit on their own (RevRDist can be configured to do this).

By putting a sound file in the Startup Items folder and the Shutdown Items folder, you can have both a welcome and goodbye sound without using any system extensions!

• SDI Configure

Remote Shut Down…

You may shutdown (or restart) another macintosh on your network with the Remote Shutdown menu item. This requires that the other macintosh be running a copy of SDI Engine, and that "program linking" is enabled on the remote macintosh.

When you choose this option, you will see a dialog box which shows other macintoshes on your network, and the AppleEvent-aware programs running on these machines. If you only see your own macintosh, see the note below concerning "program linking". You must choose a "SDI Engine" program on some macintosh; choosing a different application will not have the desired effect. You may choose to restart or shutdown the other macintosh. The appropriate command will be sent (via AppleEvents) to the remote copy of SDI Engine, and that application will shutdown or restart its own computer.

As an unsupported feature(?), you may choose the "Finder" (instead of "SDI Engine") of your own macintosh, and you can restart or shutdown your own computer this way. Currently, you cannot tell a remote Finder to shutdown, so this feature only works locally (which is not very useful, but future versions of the mac Finder might allow remote shutdowns this way). For now, you must have a copy of SDI Engine running on the remote macintosh.

In order for this remote shutdown to work, the remote macintosh must have "Program Linking" turned on, and the remote SDI Engine application itself must have the linking option enabled. Program Linking is turned on/off via the Sharing Setup control panel (if you are confused by these terms, consult your network manager). In addition, you must have the appropriate privileges for such an operation (you may be asked to give a password). Now you can see that even though this remote shutdown capability sounds dangerous, it really isn't -- everything must be set up properly ahead of time.
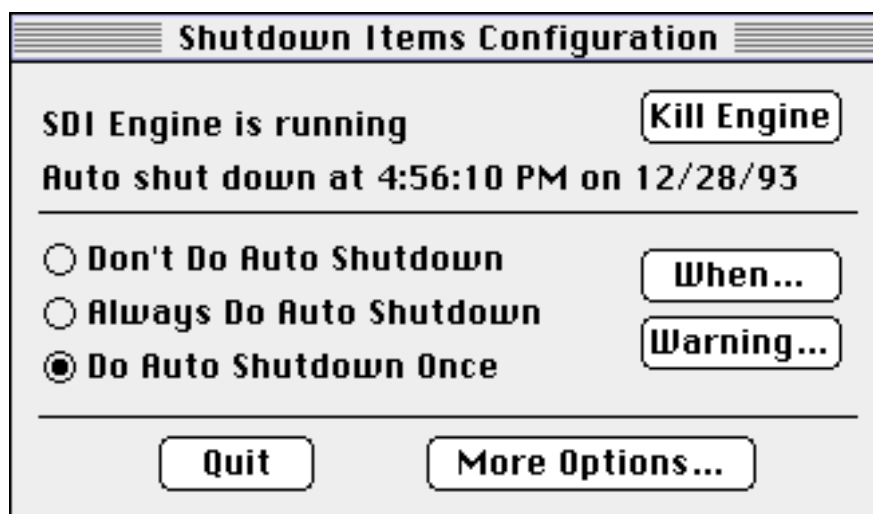
Since Remote Shut Down is equivalent to selecting Shut Down or Restart from the Special menu, any applications currently running with unsaved work will stop the shutdown process, like you would expect.

Launch Shutdown Items Now…

This menu item is normally used to test your setup, without requiring you to actually shutdown or restart your computer. This will launch all items contained in the Shutdown Items folder, just as SDI Engine would do it during a shutdown.
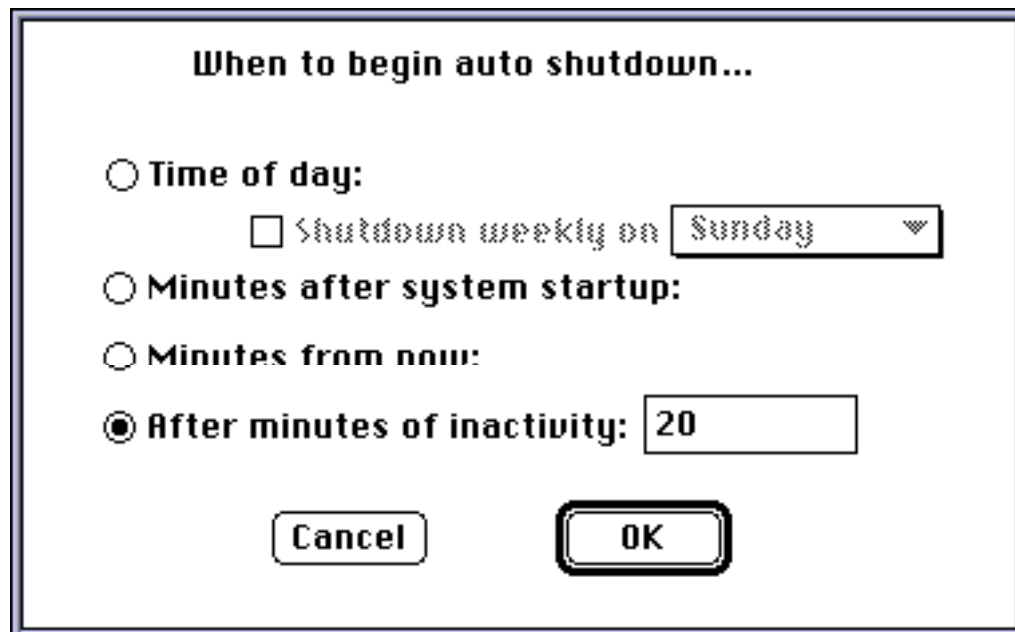
Register…

This menu item allows you to enter a serial number to register your copy of Shutdown Items. After you send in your payment, you will be sent the proper serial number. SDI Notify will display a message if the software is not registered.

The SDI Configure configuration window gives you status information, and allows you to change your settings. If SDI Engine is currently running, this is displayed at the top. By clicking the "Kill Engine" button, you can quit the SDI Engine application. If you are currently set up for an automatic shutdown, the shutdown time is displayed at the top as well.

The middle section gives you options for an automatic shutdown. If you click "Always Do Auto Shutdown", then the auto shutdown settings will remain in effect each time your mac is turned on. If you click "Do Auto Shutdown Once", then the auto shutdown will take place one time only, and the next time your start your computer no auto shutdown will occur.

When…

The "When" button brings up a dialog with choices about when an auto shutdown will take place.
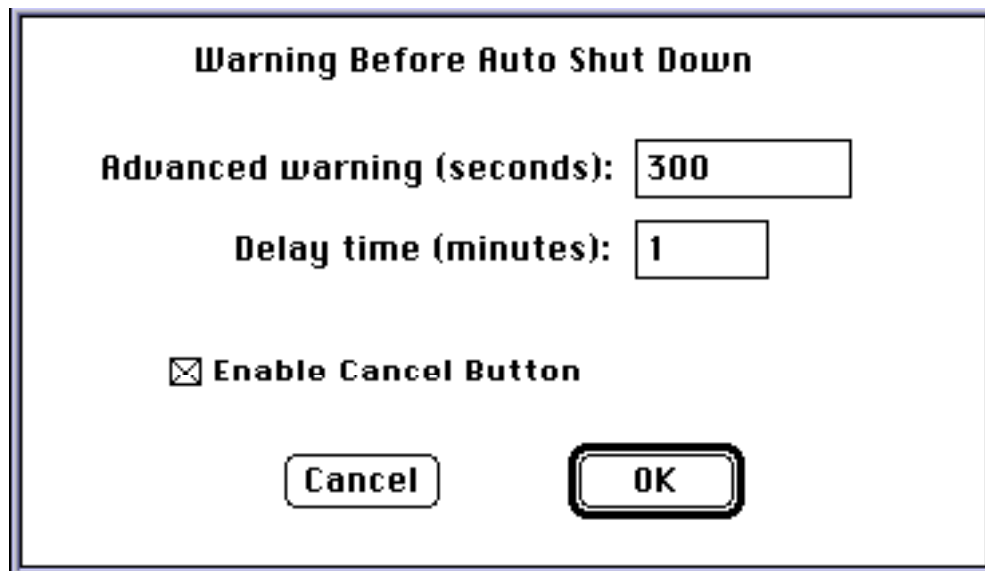
Time of day- Click this radio button and type in a time of day if you want your computer to shut itself down at a certain time of day. If you check the "Shutdown weekly on" checkbox, you can select a day of the week as well, for a weekly shutdown.

Minutes after system startup - Click this radio button to program your mac to shutdown after a certain number of minutes from startup time. Startup time is the time that your computer was last booted, not necessarily the time SDI Engine was launched.

Minutes from now - Click this radio button to program your mac to shutdown after a certain number of minutes from now. The timer begins when you click the OK button.

After minutes of inactivity - Click this radio button to program your mac to shutdown after a certain number of idle minutes. Activity is defined as using the keyboard or mouse.
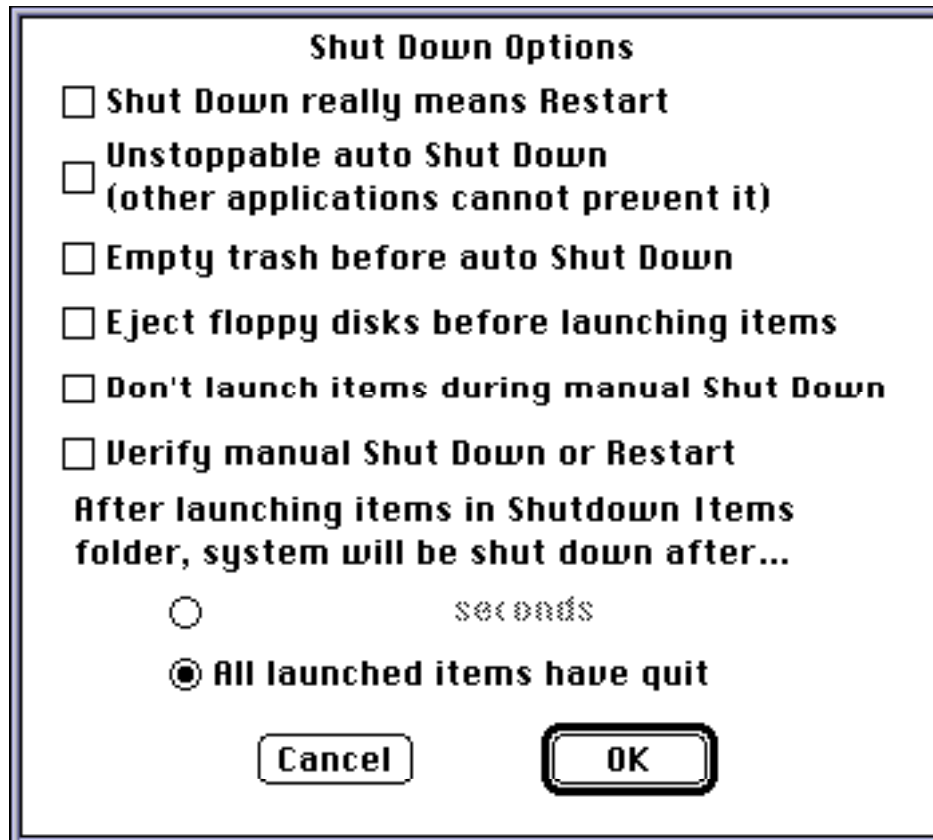
Warning…

Warning Before Auto Shut Down

Advanced warning (seconds): `300`

Delay time (minutes): `1`

☒ Enable Cancel Button

[Cancel]   [**OK**]

The "Warning" button brings up a dialog which allows you to specify when a warning will be displayed before an auto shutdown occurs. This option requires that the SDI Notify application be placed in the same folder as SDI Engine.

"Advanced warning" specifies the number of seconds before the auto shutdown when the warning window will appear. This warning window will contain a "Delay" button to allow a user to delay the auto shutdown (sort of like a "snooze" button). "Delay time" here specifies the number of minutes to delay an auto shutdown after the "Delay" button is clicked.

If you want a "Cancel" button to appear in the warning window, check the "Enable Cancel Button" checkbox. When the user clicks "Cancel" after the auto shutdown warning window appears, no auto shutdown will occur.

More Options…

Shut Down really means Restart - Check this checkbox if you want your mac to restart, instead of shutdown, during an automatic shutdown

Unstoppable auto shutdown - If you check this checkbox, then an automatic shutdown will occur no matter what, unless canceled ahead of time. This type of shutdown is *not* like choosing "Shut Down" from the Finder where other applications have the opportunity to halt the process. Instead of sending a "Shut down" message to the Finder which then takes over, the computer is simply shutdown immediately.

Empty trash before auto shutdown - This allows you to have your trash automatically emptied before an auto shutdown.

Eject floppy disks before launching items - If you check this checkbox, then floppy disks will be ejected before shutdown items are launched during an automatic shutdown (so the user does not have to wait, in the case where you may have a time-consuming shutdown application).

Don't launch items during manual shutdown - If you check this checkbox, then those items in the Shutdown Items folder will only be launched during an automatic shutdown. SDI Engine will ignore manual shutdowns or restarts. If this box is NOT checked, the items in the Shutdown Items folder will always be launched before shutdown. Unfortunately, once items have been launched, the system will then be shutdown, even if "Restart" was manually chosen. You can minimize this situation with the next option.

Verify manual shutdown or restart - Unfortunately, once the user chooses "Shut Down" or "Restart" manually from the Finder, there is no easy way to determine exactly which operation was chosen by the user (unless system traps are patched, which can lead to incompatibilities). After SDI Engine launches the shutdown items, a shutdown will always be performed (even if "Restart" was chosen. There are two ways around this. You may hold down the OPTION key during a restart to bypass SDI Engine entirely (good for those who know to do this). Or, you can configure Shutdown

Items to verify all manual operations. When this option is chosen, SDI Notify will present a dialog box during manual shutdowns or restarts with three options: shutdown, restart, or cancel. Make sure SDI Notify is located in the same folder as SDI Engine of you use this option.

After launching items in Shutdown Items folder, system will be shutdown - If you want to launch some applications during an automatic shutdown, and wait for a period of time before actually shutting down the computer (giving those applications some time to "do their thing"), you can. Just type in the desired delay. Note that this delay applies to both automatic and manual shutdowns. If the delay is zero, your shutdown items will be launched and the computer will shut itself down immediately (this is just fine if you just want to play some sounds, or launch nothing during shutdown). If delay is greater than zero, the "shutdown time" referred to elsewhere is actually the "launch time" of your shutdown items, and actual shutdown will take place after the delay. (It is possible to launch your shutdown items several times before actually shutting down, if you set your mac to shutdown at a certain time of day but set the delay to greater than 24 hours.).

There are some applications (like RevRDist) which can be configured to quit themselves when they are finished doing their tasks. If you click "All launched items have quit", then SDI Engine will wait until all the shutdown applications (those launched from the Shutdown Items folder) have quit, and then do the shutdown.

• Applications

You may be wondering how you can fully utilize this program. You can use it to play your favorite welcome and goodbye sounds by placing the sound files in the Startup Items and Shutdown Items folders. This can be very entertaining after a long day!

Those of you with unattended file servers, or with a public lab full of macs for students or coworkers, may want to program each mac to shut itself down at the end of the day. By placing a lab utility program such as RevRDist in your Shutdown Items folder, you can "clean" the hard drive after each student finishes using it. In these situations, the option to automatically shutdown after a period of inactivity is very useful.

If you want to have your trash automatically emptied when you shutdown, this may also allow you to do this (or eliminate another extension you already use for this purpose). You can fill up the trash can all you want, and then just choose "Shut Down" from the Finder and walk away while the trash empties and your computer shuts itself down.

You may want to launch some sort of time-logging program during shutdown, in order to keep track of your computing time (for billing purposes). My freeware program called "PunchOut" does just that. You can place it in your Shutdown Items folder, and it will be launched when you shutdown. No need to keep it running the whole time. PunchOut will display the number of hours that your computer has been turned on, and allow you to log the hours (you may edit the number of hours) along with a comment in a text file. This is how I keep track of the number of hours spent on various tasks.

You may want to initiate a very long process (backups or downloading) before you go to bed, and program your mac to shutdown in the middle of the night.

• Support Shareware!

This is a shareware application, with some exceptions. You may distribute it freely for non-profit purposes (please keep the entire package together). If you use Shutdown Items for just pure

entertainment (playing your favorite sound clip, for example), you may use it for free. However, if you are getting some real use out of it (to launch a backup utility or perform automatic shutdowns), I ask that you send in the registration fee. That will encourage me to continue to improve and support the product, and I will notify you of future upgrades.

Registration fees are as follows (U.S. dollars only please):
$10   1 copy
$50   10 copies
$100 25 copies
$200 75 copies
$300 150 copies
$400 unlimited single site license

Additional charges:
$2   Mail 1 disk on request

You may pay by check (drawn on a U.S. bank only) or by credit card (MasterCard or Visa). I also accept money orders, university purchase orders, and international postal money orders. If you cannot pay by one of these methods, contact me about an alternate form of payment (I understand about the difficulty for non-U.S. users to pay in U.S. dollars).

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