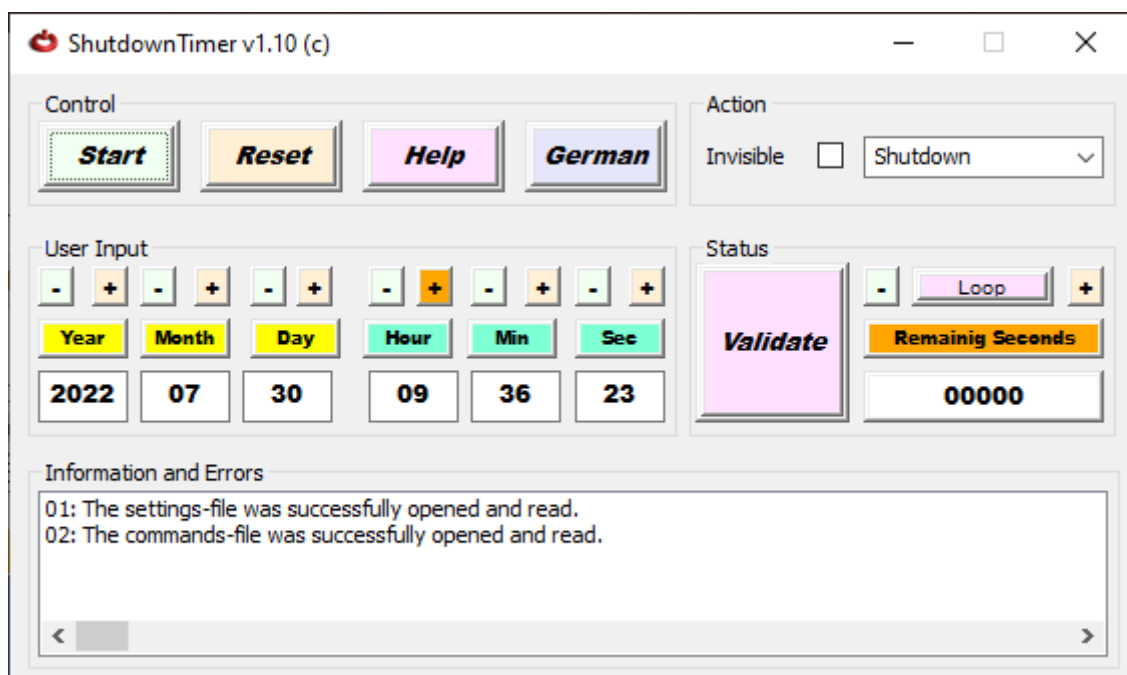


Shutdown Timer Operator Manual

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Shutdown Timer

1. Summary of Properties

- The Shutdown Timer can shutdown Windows computers time-controlled. There are 6 input fields and 12 plus/minus keys to enter the event time.
- The Shutdown Timer can be supplemented by user commands. When the program is started, a file with the name Commands.txt is read in.
- The Shutdown Timer has a list box which displays the detected errors and other information.
- The Shutdown Timer saves the last used user settings in a file named Settings.txt (e.g., the language or the last window position). After the program start, the read-in settings are applied.
- The shutdown timer is bilingual, German and English. You can switch between the languages by pressing a button.

The Shutdown Timer is portable, i.e., it does not make or require any entries in the Windows Registry. Its directory structure is as follows:

- ShutdownTimer_Version.exe
- _Commands\ Single user commands to be sent
- _Exports\ Exported text files
- _Help\ German and English help file
- _Settings\ The saved settings

2. Description of the Program Interface

Item	Description
Control:	
Start button	Starts the configured action.
Reset button	Stops the configured action and updates the edit boxes by inserting the current date and time.
Help button	Opens the help file in the currently active language. There are two help files, one in German and one in English.
German button	Switches the output language between English and German.
Check button	Checks the current user input and outputs complaints in the list box.
Loop button	By default, it is checked exactly once per second whether the configured event time has already arrived. This button can be used to increase the time loop in which the check is performed to a maximum of 60 seconds. If you press this button, the heading (Remaining sec) changes to Loop time and the current loop time is displayed in the box below.
Time entry:	
6 labels (year, month, day, hour, min, sec)	Headings to indicate the respective function.
6 edit boxes (year, month, day, hour, min, sec)	Enter the event time. Clicking on it deletes the current contents of the box.
12 + 2 plus/minus buttons	Increments or decrements the underlying box content. You can hold down the left mouse button for about 2 seconds on the respective button, then the auto-incrementation or decrementation begins.

Shutdown Timer

Item	Description
Action:	
Invisible checkbox	<p>If this check mark is set, the Shutdown Timer window becomes invisible approx. 10 seconds after starting the action. After that, you can only stop the Shutdown Timer via the Windows Task Manager.</p> <p>If the check mark is not set, the window is minimized after the action is started.</p>
drop-down menu	Action selection.
Status:	
Remaining Seconds	Heading of the output box below.
5-digit output	Seconds remaining until the configured action is performed. As long as no action has been started, the display always shows 5 zeros. After that, it shows the current countdown value.

3. Entering the Action Time via the Edit Boxes

Clicking into an edit box will automatically clear its contents. The user can then enter the event date and time. The input is checked directly. Wrong characters as well as numbers that are too small or too large are detected. Detected errors are displayed in the list box. In the event of an error, the input is replaced by the previously saved value.

Single-digit correct values entered are automatically supplemented by a leading zero. For example, 9 o'clock 3 min becomes 09 o'clock 03 min.

4. Entering the Action Time via the Plus/Minus Buttons

When a button is clicked (single click), the associated edit box is incremented or decremented up to the maximum value allowed. For example, the limits for entered minutes are 0 to 59 and for days from 0 to 31, depending on the month (February: 0 to 28) and leap years (February: 0 to 29). When the limit is reached, the value stops.

All plus/minus buttons automatically start running if you stay on the button for about 2 seconds with the button pressed. This leads to auto-incrementation/decrementation with approximately 4 updates per second.

There is one exception to the behavior of the buttons. It is the plus button for entering the hours. Therefore, this button has a different color. The corresponding display runs over to 0 hours. The dependent displays day, month and year are also updated. If, for example, the event time is set to 31.12.2022 17 o'clock and then the hour plus button is pressed, the display will run over to 01.01.2023 0 o'clock after approximately two seconds. February 29th is also taken into account.

5. Input and Function of the Loop Time

The loop time is the cycle time with which the event is checked. In the delivery state, the loop time is set to 1 second. If it is not so important and it does not matter whether the PC is shut down with a delay of one minute, for example, the loop time can be increased to up to 60 seconds. You press or stay on one of the two plus/minus loop buttons. Then the heading above the 5-digit "Sec Remaining" display changes to "Loop Time" and the current loop time is displayed. The value updated in this way is saved in the user settings when the program is closed and is read in and applied the next time the program is started.

When the loop button is pressed, the heading changes and the current loop time is displayed.

The amount of computing time consumed by the shutdown timer is actually hardly worth mentioning. Therefore, increasing the loop time does not significantly reduce the load on the PC.

6. Contents of the Settings File

The following data is stored in the settings file:

- Last active output language
- Last window position
- Loop time
- Window size after starting an action (Minimized or Invisible)

When the program is started, the user settings are read in and applied. If the file has been deleted by the user, it will be recreated from the internal default values the next time the program is closed.

7. Contents of the Commands File

The shutdown command is the only one that is created from internal memory. The other commands are read from the stored Commands.txt file. If the user has deleted this file, it will be recreated from internal defaults when the program is started. If indeed only one command (namely Shutdown) is desired, the contents of the file must be deleted, but the empty file with the correct name must exist.

If the user wishes to add his own commands or replace existing ones, the following format must be applied.

```
shutdown /h /f # Hibernate
```

To the left of the hash character # is the command that is passed to the Windows Command Processor. The space(s) to the left of shutdown or to the right of /f are removed before execution, i.e., they do not interfere. Otherwise, the command syntax must be exactly right, since the Windows Command processor doesn't mess around. There must be a unique command name to the right of the hash character. This command name appears in the dropdown box after the program start. Please test user commands in a command window before adding it to the file.

8. File Exports

The Shutdown Timer saves a file in the _Exports subdirectory for each shutdown (or other event). The file lists the program control by the user with date and time such as program start, action start, action stop or action execution. If the program is terminated manually by the user (and not by an action), a file is also created. The purpose of these files is the possibility of a supervision, if one day the PC should still be running contrary to the user's expectation, i.e., if the supposedly configured action was not executed.

These event files are automatically deleted after a certain period of time. In this version, the deletion takes place 56 days, i.e., eight weeks after creation.

9. Revision List

Date	Version/ Chapter	Description of the change
30.07.2022	V1.10c	First published version.