

shutdown

COLLABORATORS

	<i>TITLE :</i> shutdown	
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>
WRITTEN BY		March 1, 2023
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REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

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Chapter 1

shutdown

1.1 shutdown

Copyright
GNU General Public License
Warranty
Introduction
User Guide
Programmer Reference
Related Software

1.2 Copyright

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the

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To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

```
<one line to give the program's name and a brief idea of what it does.>  
Copyright (C) 19yy <name of author>
```

```
This program is free software; you can redistribute it and/or modify  
it under the terms of the GNU General Public License as published by  
the Free Software Foundation; either version 2 of the License, or  
(at your option) any later version.
```

```
This program is distributed in the hope that it will be useful,  
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```

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Foundation, Inc., 675 Mass Ave, Cambridge, MA 02139, USA.
```

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```
Gnomovision version 69, Copyright (C) 19yy name of author  
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type 'show w'.  
This is free software, and you are welcome to redistribute it  
under certain conditions; type 'show c' for details.
```

The hypothetical commands 'show w' and 'show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than 'show w' and 'show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

```
Yoyodyne, Inc., hereby disclaims all copyright interest in the program  
'Gnomovision' (which makes passes at compilers) written by James Hacker.
```

```
<signature of Ty Coon>, 1 April 1989  
Ty Coon, President of Vice
```

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1.4 Introduction

The Amiga's lack of a shutdown mechanism is probably based on the assumption that the user is always the direct cause of disk access or at least aware of the fact that the disks may be accessed at a certain point.

Unfortunately this is obviously not true for BBS systems or Amigas connected to a LAN or in some other way running in a multiuser environment. It is also not true for Amigas acting as servers or Amigas doing longer calculations (e.g. rendering) in the absence of a console user. There's also still the small chance that the user thinks the disks are idle and it's safe to turn of the system and a background program chooses this moment to start disk activity.

In 1992 Olaf Barthel already wrote a shutdown.library to take care of this problem. It is not required but can be used together with this shutdown command.

The original version is available as aminet:util/boot/Shutdown2_0.lha. A compatible but smaller version is included in this archive. The included version notifies programs the way the original library did but does nothing else.

1.5 User Guide

Shutdown is a program like the UNIX shutdown command which allows to shut down AmigaDOS.

It sends regular shutdown messages through a message queue (usign the

queue.library

) and shuts down the machine after

the given period (10 seconds by default).

A running shutdown can be cancelled with the "-c" option or by sending a CTRL-C to the running shutdown command.

The following options are available:

- M: Maximum shutdown delay in seconds. Applications can delay the shutdown by the maximum shutdown delay.
- W: Mount filesystems read-only. shutdown -W -i -e remounts all filesystems read-only immediately and does not halt the system.
- S: Use the shutdown.library
- R: Remount filesystems (read-write).
- n: Ignore cancel messages.
- r: Reboot (ColdReboot()) after shutdown.
- h: Halt (Disable()) after shutdown.
- e: Exit after shutdown. Some filesystems (e.g. RAM, NFS will still be available).
- t: Shutdown time in seconds.
- s: Sync time. Time between unmounting and reboot or halt.
- c: Cancel (see above).
- i: Immediate, same as -t0 -M0.

The sdwarn program is an example client for the
queue.library

which can be used to broadcast shutdown messages to other CLIs. One possible application is to "run sdwarn -c \$process" from the remote-login script of the AmiTCP telnet demon. When started with the "-c" option sdwarn monitors the CLI specified by the "-c" option and exits when the CLI has disappeared.
WARNING: This does not work when telnetd is exited with "q" from the "telnet> " prompt!

1.6 Related Software

This list of programs which use queue.library to send or receive shutdown messages will be continuously updated by amiga-dev@shw.com. It will also be available from <http://www.shw.com>. If you want your software to appear on the list send your registration to SHW Wabnitz (see Programmer Reference).

ShutUp 1.3.5 UPS Software

1.7 Registration Form

author: _____ email: ↔

company: _____

address: _____

program description: _____

URL: _____

() Yes, please mention our product / my program on the
Related Software page.

1.8 SHW Wabnitz

SHW Wabnitz
Grabenstrasse 33
53225 Bonn
Germany

Tel: +49/(0)228/97289-0
Fax: +49/(0)228/97289-50
email: sales@shw.com (orders)
 amiga-dev@shw.com (developer contact)
WWW: http://www.shw.com

1.9 ShutUp 1.3.5 UPS Software

ShutUp 1.3.5 is a UPS monitor program for uninterruptible power supplies which use the serial interface to send up to four different signals (CD, CTS, DSR & RI) but support no serial protocol. Since the serial.device does not support direct control of the DTR & RTS lines ShutUp only supports the standard serial hardware.

ShutUp uses

```
queue.library  
to broadcast  
SHUTDOWN_INFO  
messages
```

and calls an ARexx script.

Company:

SHW Wabnitz

1.10 Programmer Reference

The shutdown command is a program similar to the UNIX shutdown command. It uses the

```
queue.library  
to broadcast  
ShutdownMessages
```

to other programs listening to the shutdown queue.

The sm_Status field of a ShutdownMessage contains one of the following values (defined in shutdown.h):

```
SHUTDOWN_WARN
```

```
SHUTDOWN_INFO
```

SHUTDOWN_ABORT

SHUTDOWN_NOW

SHUTDOWN_UMOUNT

SHUTDOWN_HALT

If you write a program which supports this shutdown mechanism ↔
please
consider registering it. The Registration is free of charge.
Registered developers can appear on the
Related Software
page.
A mail with a short description of your software (or an URL) is enough.
Please fill in the
Registration Form
and send it to
SHW Wabnitz
.

1.11 queue.library

The queue.library is available as aminet:util/libs/queue.lzh. It may be distributed under the terms of the GNU Library General Public License.

1.12 SHUTDOWN_WARN

When this message is broadcasted the system is going down after a specified number of seconds. The sm_TimeLeft field of the shutdown message contains the number of seconds left until the filesystems are unmounted.

1.13 SHUTDOWN_INFO

This message type is reserved for special information.
The sm_Info field can currently only be SDM_UPS_MONITOR.
The SDM_UPS_MONITOR message is send by
UPS monitors
, which set
the sm_Extra field to struct UpsInfo * (defined in
shutdown.h
).

1.14 SHUTDOWN_ABORT

This message is send when the shutdown command receives a CTRL-C or a shutdown -c is started. Clients should not exit before they receive

```
SHUTDOWN_UMOUNT
, after which
```

the shutdown is irreversible.

1.15 SHUTDOWN_NOW

This is the last warning before the filesystems are unmounted. It is a good idea to finish disk access as soon as possible. After the next message (

```
SHUTDOWN_UMOUNT
)
```

the filesystems are either read-only or inhibited.

1.16 SHUTDOWN_UMOUNT

After this message all filesystems (except RAM and NFS type filesystems) are read-only or inhibited.

1.17 SHUTDOWN_HALT

This message isn't of much use to most programs but UPS monitor programs might be able to turn off the lights at this point.

1.18 queue/shutdown.h

```
/*
queue/shutdown.h --- shutdown queue definitions.

(c) Copyright 1995 SHW Wabnitz
Written by Bernhard Fastenrath (fasten@shw.com)

This file may be distributed under the terms
of the GNU General Public License.
*/

#ifndef QUEUE_SHUTDOWN_H
#define QUEUE_SHUTDOWN_H

/* definitions for the sm_Status field:
SHUTDOWN_WARN: system might go down
```

```
SHUTDOWN_INFO:    check sm_Info field
SHUTDOWN_ABORT:   shutdown cancelled
SHUTDOWN_NOW:     system is going down in a few seconds
SHUTDOWN_UMOUNT:  accessing files is pointless from now on
SHUTDOWN_HALT:    the system is down
*/
#define SHUTDOWN_WARN    0x01
#define SHUTDOWN_INFO    0x02
#define SHUTDOWN_ABORT   0x04
#define SHUTDOWN_NOW     0x08
#define SHUTDOWN_UMOUNT  0x10
#define SHUTDOWN_HALT    0x20

/* definitions for the sm_Info field:
   SDMI_UPS_MONITOR: UPS monitor report (sm_Extra points to struct UpsInfo)
*/
#define SDMI_UPS_MONITOR 0x01

typedef struct {
    ULONG    sm_Status;
    ULONG    sm_TimeLeft;
    ULONG    sm_Info;
    void     *sm_Extra;
    ULONG    sm_Reserved[2];
} ShutdownMessage;

typedef struct UpsInfo {
    ULONG ui_Event;
    ULONG ui_Charge; /* Charge in percent */
    ULONG ui_Time;   /* Remaining time */
    ULONG ui_Reserved[8];
} UpsInfo;

#define UPS_EV_OKAY            0x00
#define UPS_EV_LINE_FAIL      0x01
#define UPS_EV_RECOVERY       0x02
#define UPS_EV_BYPASS         0x03
#define UPS_EV_NO_BYPASS     0x04
#define UPS_EV_LOW_BATTERY    0x05
#define UPS_EV_RECHARGED      0x06
#define UPS_EV_SHUTDOWN_RECOMMENDED 0x07
#define UPS_EV_SHORT_POWER_FAIL 0x08
#define UPS_EV_FAULT         0x0a
#define UPS_EV_NO_FAULT      0x0b
#define UPS_EV_INVERTER      0x0c
#define UPS_EV_NO_INVERTER   0x0d
#define UPS_EV_SPECIAL_ON    0x0e
#define UPS_EV_SPECIAL_OFF   0x0f
#define UPS_EV_CONNECTION_LOST 0x11
#define UPS_EV_CONNECTION_OKAY 0x12
#define UPS_EV_MAX           0x12

#define UPS_EV_NAMES { \
    "Okay", "Line Fail", "Recovery", \
    "Bypass", "No Bypass", "Low Battery", \
    "Recharged", "Shutdown Recommended", \
    "Short Power Fail", "", \
```



```
"Fault",      "No Fault", \
"Inverter",   "No Inverter", \
"Special On", "Special Off", "", \
"Connection Lost", "Connection Restored" \
}

#endif /* QUEUE_SHUTDOWN_H */
```
