

ScreenClock

Thomas Igracki

COLLABORATORS

	<i>TITLE :</i> ScreenClock		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
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REVISION HISTORY

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Chapter 1

ScreenClock

1.1 ScreenClock Documentation

```
ScreenClock v1.83 / by Thomas Igracki
-----/

AFD - C O P Y R I G H T

What should be in the archive?  The history of the program
What is it for?                 How to contact me?
How to start?                   Possible error messages

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This software is subject to the "Standard Amiga FD-Software Copyright Note"
It is GIFTWARE as defined in paragraph 4g. [...]
For more information please read "AFD-COPYRIGHT" (Version 1 or higher).
```

1.2 ScreenClock/What should be in the archive?

The following files should be in the archiv:

```
env/ScreenClock          --> example environment variable
libs/sysinfo.library     --> SysInfo.library by Petri Nordlund
help/deutsch/ScreenClock --> german documentation, AmigaGuide-Format
help/deutsch/AFD-COPYRIGHT --> german COPYRIGHT-Note
help/english/ScreenClock --> english documentation, AmigaGuide-Format
help/english/AFD-COPYRIGHT --> english COPYRIGHT-Note
ScreenClock.readme       --> short english doc, ASCII
ScreenClock.liesmich     --> short german doc, ASCII
Product-Info             --> product info
ScreenClock.info         --> the wb-icon for ScreenClock
ScreenClock              --> the program for OS >= v38 (2.1)
```

1.3 ScreenClock/What is this program for?

This program displays the date, time and optional the free memory in your current screen's titlebar (left to the depth-gadget) in the actual language. Additionally the current or recent cpu usage can be displayed too!

The features are:

- configurable date and time format
- optional showing of the free memory
- in-/excluding screens to be used or not used
- adjustable update-rate in which the display should be updated
- using a notified environment variable, named SCREENCLOCK, which will be read at startup and on changing
- observing ENV:SYS/locale.prefs to get informed, if the language changed
- optional working only on public-screens, see OPS=OnlyPubScreens/T
- adjustable task priority, see Pri=TaskPriority/K/N
- supporting autoscroll screen, see AV=AlwaysVisible/T
- vl.72: displaying 1/50ths of a second on demand, see ST=ShowTicks/T
- vl.73: double the 1/50ths of a second on demand to have pseudo 1/100, see DT=DoubleTicks/T
- vl.8 : displaying the current cpu usage optionally, see CPU=CpuUsage/T
suppress locking of the screen while writing to it,
see NLS=NoLockScreen/T
- vl.81: fixes a bug if NLS=NoLockScreen/T is off (the pubScreen wasn't unlocked)
- vl.82: Fix: Recompiled with new SysInfo.library interface, because the spelling of the library changed (sysinfo->SysInfo).
Fix: I didn't checked if CpuUsageLastsec is implemented.
If not implemented, then the cpu-usage is not available.
- vl.83: New: ScreenClock didn't needs the ShowTitle-Flag of a screen to work with. So now, ScreenClock works on MUI-Screens.
New: Now you can choose between recent (last 60 sec) or last sec CpuUsage. RecentCPU/T

To remove ScreenClock simple start it again or break it with CtrlC.

1.4 ScreenClock/How to start

Start from a shell:

```
[Run] ScreenClock DF=DateFormat/K,MF=MemoryFormat/K,
Screens/K,D=Delay/K/N,Mem=Memory/T,
OPS=OnlyPubScreens/T,Pri=TaskPriority/K/N,
AV=AlwaysVisible/T,ST=ShowTicks/T,DT=DoubleTicks/T
CPU=CpuUsage/T,CF=CpuFormat/K,RecentCPU/T
NLS=NoLockScreen/T
```

Start from Workbench:

Just double-click the icon. There is no tooltype-support, use the env-var instead! This may change in future.

1.5 ScreenClock/Argument

DF=DateFormat/K

This option specifies the format in which the date & time should be displayed.

The available parameters are (see `Locale.FormatDate()`):

```
%a - abbreviated weekday name
%A - weekday name
%b - abbreviated month name
%B - month name
%c - same as "%a %b %d %H:%M:%S %Y"
%C - same as "%a %b %e %T %Z %Y"
%d - day number with leading 0s
%D - same as "%m/%d/%y"
%e - day number with leading spaces
%h - abbreviated month name
%H - hour using 24-hour style with leading 0s
%I - hour using 12-hour style with leading 0s
%j - julian date
%m - month number with leading 0s
%M - the number of minutes with leading 0s
%n - insert a linefeed
%p - AM or PM strings
%q - hour using 24-hour style
%Q - hour using 12-hour style
%r - same as "%I:%M:%S %p"
%R - same as "%H:%M"
%S - number of seconds with leadings 0s
%t - insert a tab character
%T - same as "%H:%M:%S"
%U - week number, taking Sunday as first day of week
%w - weekday number
%W - week number, taking Monday as first day of week
%x - same as "%m/%d/%y"
%X - same as "%H:%M:%S"
%y - year using two digits with leading 0s
%Y - year using four digits with leading 0s
```

Default: "%A %d-%h-%y %T".

The result is: Monday 09-Jan-95 18:22:57.

If you set this option to "" while ScreenClock is running, the default setting will be used again!

1.6 ScreenClock/Argument

MF=MemoryFormat/K

This option specifies the format of the memory display.

There are 3 parameters (%ld or %lD) supported:

- the 1. is for the free chip-memory in KB,
- the 2. is for the free fast-memory in KB and
- the 3. is for the total free memory in KB.

Default: " - C:%51D F:%51D".
The result is: " - C:1.737 F:3.538".

If you set this option to "" while ScreenClock is running, the default setting will be used again!

You should use a space as the first character, because the created string is appended to the created date/time string!
You could also append a space to the date/time string;-)

Tip:

If you like to change the order of the memory type, you have to place a <Position>\$ command between the % and the ld or lD chars!
<Position> is the number of the memory type, see above.

Example: MF = " Total: %3\$1D (FAST = %2\$1D, CHIP = %1\$1D) "

And If you only want to display the total free memory you have to do this:
MF = "%0.0ld%0.0ld Total: %1D"!

See also Locale/FormatString().

The difference between %ld and %1D, is that the second uses locale format.

1.7 ScreenClock/Argument

Screens/K

This option specifies the screens on which ScreenClock should appear or should NOT appear by an AmigaDOS pattern!

Because ScreenClock compares with the screen's defaulttitle, it displays the date/time/mem even if a program changed the used screen title!

If this option is not used ScreenClock uses all screens which have a titlebar.

If you set this option to "" while ScreenClock is running, the default setting (no matching) will be used again!

Tip2:

You should use a #? instead of a *, because the wild star has also some other meaning under DOS (i.e. *")!

Tip2:

If you want that some screens aren't used, than try this pattern:
~(<TitelName>|<TitelName>)

Example: SCREENS = "~(DosControl#?) "

Action : The 'DosControl'-Screen won't be used.

1.8 ScreenClock/Argument

D=Delay/N

This number specifies the update-rate in which ScreenClock updates the display.

Number of 1/50 seconds. Minimal value is 10, maximal 100.

Default 50.

1.9 ScreenClock/Argument

Mem=Memory/T

This toggle option specifies if the free memory should be appended to the date & time string.

ON : Memory = ON or Mem = ON

OFF: Memory = OFF or Mem = OFF

Default is OFF.

The "=" is optional!

1.10 ScreenClock/Argument

OPS=OnlyPubScreens/T

This is the option to specify, if only (non-private) public screens should be used.

ON : OnlyPubScreens = ON or OPS = ON

OFF: OnlyPubScreens = OFF or OPS = OFF

Default is OFF.

The "=" is optional!

1.11 ScreenClock/Argument

Pri=TaskPriority/K/N

This option specifies then priority of ScreenClock.

Only priorities between -3 and +3 will be accepted.

Default is 0.

1.12 ScreenClock/Argument

AV=AlwaysVisible/T

This option specifies if the date/time/mem should be written relative to visible right side of the screen (ON) or left to depth-gadget (OFF).

AlwaysVisible = ON or AV ON -> always visible!

AlwaysVisible = OFF or AV OFF -> always left to the depth-gadget

Default is ON!

The "=" is optional!

1.13 ScreenClock/Argument

ST=ShowTicks/T

This option specifies if you want to see 1/50ths of a second.

ShowTicks = ON or ST ON -> yes, they will be displayed

ShowTicks = OFF or ST OFF -> no, they won't be displayed

Default is OFF!

The "=" is optional!

Note:

The 1/50ths of a second will be appended (with a "."), to the DateFormat.

I did this, because ticks (1/50ths of a second) aren't supported by Locale. ↔
FormatDate().

I think, this feature will not be used very often by much people,
so it's not worth the work to extend Locale.FormatDate().

If there exists more than one people who haven't their time at the
end of the date and want the ticks to be displayed anywhere they
want, I maybe change this;-)

1.14 ScreenClock/Argument

DT=DoubleTicks/T

This option specifies if you want to see pseudo 1/100ths of a second.

Thats done by multiply the ticks (1/50ths of a second) with 2.

DoubleTicks = ON oder DT ON -> yes, they will be doubled

DoubleTicks = OFF oder DT OFF -> no, they won't be doubled

Default is OFF!

The "=" is optional!

Note:

This option is only usefull in combination with ShowTicks/T!

1.15 ScreenClock/Argument

CPU=CpuUsage/T

This option specifies if you the current CPU usage should be appended to the date, time & memory string (CPU-Format).

This is done with help of sysinfo.library by Petri Nordlund.

ON : CpuUsage = ON or CPU ON

OFF: CpuUsage = OFF or CPU OFF

Default is OFF!

The "=" is optional!

1.16 ScreenClock/Argument

CF=CpuFormat/K

This option specifies the format of the cpu-usage display.

There are maximal 2 parameters (%ld) supported:

- the 1. is for the number before the point
- the 2. is for the number after the point

See also Locale/FormatString().

Default is: " - CPU = %2ld.%.1ld%%".

The result is for example: " - CPU = 2.7%".

If you set this option to "" while ScreenClock is running, the default setting will be used again!

You should use a space as the first character, because the created string is appended to the created date/time/mem string!

Tip:

If don't want to have a number after the point, you can set the string to: CF = " CPU = %2.2ld"

1.17 ScreenClock/Argument

RecentCPU/T

This option specifies if you want to see the recent (last 60 sec.) cpu usage or the one for the last second.

This is done with help of sysinfo.library by Petri Nordlund.

RecentCPU = ON -> the recent cpu usage

RecentCPU = OFF -> the last cpu usage

Default is OFF!

The "=" is optional!

1.18 ScreenClock/Argument

NLS=NoLockScreen/T

This options specifies if the screen should be locked during writing the the data to the titlebar.

This could lead to a problem, if only one screen is open and the screen-mode is changes. [Reported by Marcin Andrzejak]

NoLockScreen = ON or NLS ON -> no locking

NoLockScreen = OFF or NLS OFF-> locking is used

Default is OFF!

1.19 ScreenClock/Errormessages

Possible error messages during startup:

```
1 : Failed to create the msg-port.
2 : Dos.AllocDosObject(Dos.rdArgs) failed.
3 : Notify to ENV:ScreenClock failed.
4 : Notify to ENV:SYS/locale.prefs failed.
5 : Failed to InitSysinfo().
```

If the env-var or the shell arguments couldn't be parsed an appropriate error message will be displayed.

1.20 ScreenClock/Programhistory

Release 1.83:

Revision 38.27 1996/05/26 19:08:33 tig

New: ScreenClock didn't needs the ShowTitle-Flag of a screen to work with. So now, ScreenClock works on MUI-Screens.

New: Now you can choose between recent (last 60 sec) or last sec CpuUsage

Release 1.82:

38.26 (02.12.95):

Fix: Recompiled with new SysInfo.library interface, because the spelling of the library changed (sysinfo -> SysInfo).

Fix: I didn't checked if CpuUsageLastsec is implemented. If not implemented, then the cpu-usage is not available.

Release 1.81:

38.25 (25.11.95):

Fix: fixes a bug if 'NoLockScreen' is off (the pubScreen wasn't unlocked)

Release 1.8:

38.24 (15.11.95):

New: Option 'NLS=NoLockScreen/T' specifies, if the screen should be locked

during writing the data to the titlebar.

This could lead to a problem, if only one screen is open and the screenmode

is changes. [Reported by Marcin Andrzejak]

Chg: The Environment-Variable (SCREENCLOCK) can now contain upto 1024 chars.

38.23 (14.11.95):

New: Options: CPU=CpuUsage/T,CF=CpuFormat/K

The current CPU usage can be displayed additionally!

Release 1.73:

38.22 (17.07.95):

New: Option 'DoubleTicks/T' -> the 1/50 secs. get doubled, so you have pseudo 1/100 secs.

Only in combination with 'ShowTicks/T'. Default is OFF. [Wished by Raj Joshi]

Chg: The ticks will be shown with 2 or 3 digits (if DoubleTicks = ON).

Release 1.72:

38.21 (20.06.95):

New: Option: 'ShowTicks/T' -> Display 1/50ths of a second? [Wished by Raj Joshi]

With limitation, see ST=ShowTicks/T

Default is OFF.

Fix: After a notify-signal or Ctrl-C is received (Env-Var or Locale changed), ScreenClock won't do a delay.

Fix: "Titlebar-flicker" reduced

Release 1.71:

38.20 (30.04.95):

Chg: The Env-Var can contain multiple lines, they will be concated.

38.19 (26.04.95):

Chg: Scr.defaultTitle AND Scr.title have to be NIL, to display nothing.

[Wished by Rodney Hester, so he can use Klondike V1.8 ;-]

IF .defaultTitle = NIL and .title # NIL, then .title will be used for matching.

Release 1.7:

38.18 (04.03.95):

Doc: Node What is it for? improved.

Doc: Node How to contact me? corrected.

Fix: If the new string is shorter than the old, the display wasn't cleared.

[Reported by J.Frede]

[I have used "<" instead of ">";-]

Chg: Under OS v38, I now use color 0 on 1.

That should be the last change;-)

If it doesn't, I probaly will add 2 new options (front-, backpen) in the next version;-)

[Reported by T.Schwarz]

Release 1.6:

38.17 (01.03.95):

Chg: Error messages are displayed as numbers.

Doc: Possible error messages explained.

38.16 (26.02.95):

Fix: Pubscreens couldn't be recognized if OPS = ON. [reported by Hanno]

Release 1.5:

- 38.15 (16.02.95):
Chg: The bars layer will get locked only direct around `Int.PrintIText()`.
Doc: Start from Workbench explained.
Doc: Icon added!
- 38.14 (15.02.95):
Chg: Under OS v38, background color is 2, foreground color is 1.
That should be the right combination!?
- Fix: If an autoscroll-screen with `leftedge = 0` is used, the x pos.
was calculated as if it was a normal screen.
- 38.13 (14.02.95):
New: If the layer and the pub-screen was locked at the end of the program,
they will be unlocked.
This could (!) occure, if ScreenClock gets breaked during the calculating
of a new date/time/mem-string by an error.
This should avoid the rarely occured 'hanger'.
- 38.12 (13.02.95):
New: Some NIL-checks added.
New: The actual screen will be compared with the screen which was actual
before calculating a new date/time/mem-string.
This should make the program a little more stable with non-public-screens ←
- 38.11 (12.02.95):
Chg: Under OS v38, the shadow-pen (instead of the shine-pen) will be used
as the background color.
- 38.10 (11.02.95):
New: Option 'AV=AlwaysVisible' -> date/time/mem always visible?
Default is ON!
- 38.9 (09.02.95):
New: The date/time/mem is always visible!
Usefull for oversized (autoscroll) screens!
Doc: Examples for the option Screens

Release 1.4:

- 38.8 (29.01.95):
Fix: Screens with a title but no titlebar won't be used anymore!
Chg: The screen will be written with `Intuition.PrintIText()`, so the
rare 'color-changes' of the titlebar shouldn't appear anymore!
Because this proc. sets the front- and backPen!
- Chg: Therefore ScreenClock doesn't needs a special version for OS v39!
Also it won't be check anymore if OS is `>= v38 (2.1)!`
- Fix: `FreeScreenDrawInfo()` forgotten;-(
Chg: It doesn't checks anymore before writing if a non-public screen
is closed!

Release 1.3a:

- 38.7 (28.01.95):
Fix: Check, if the barLayer is allready locked.
If so then don't wait until its free!

Release 1.3:

- 38.6 (27.01.95):
New: 'OPS=OnlyPubScreens/T' -> use only public screens?
New: If the actual screen is public, it will be locked during writing,
to prevent it of beeing closed!
If not, it will be checked if its not closed yet before `Gfx.Text()`.
Fix: 'Ugly' displays should be the past.
New: 'Pri=TaskPriority/K/N' -> Priority of the task. `-3 <= pri <= +3`

New: Notify on 'ENV:sys/locale.prefs'
38.5 (26.01.95):
Fix: Screen.barLayer is locked during the action.

Release 1.2:
38.4 (13.01.95):
New: The right pens (like the titlebar) should (!) be used now.
New: Two different versions for OS2.x (>=v38) and O3.x (>=v39)
It will be checked during start.
Fix: CloseLocale() have been forgotten at the end;-(
Fix: Locale.FormatDate() appends one 0X too many on some formats
(the abbreviated!), therefore the date could be one char too short.
Fix: If the notify fails, has been Dos.EndNotify() called though.
Some cleaning ups.

Release 1.1:
38.3 (12.01.95):
Fix: The reloading of the parameters didn't acts like it should.
New: If MF = "" or DF = "" the defaults will be set again.
38.2 (11.01.95):
New: The env var will be reloaded on changes!
Chg: Option 'Memory' changed to a toggle option, s. docs
38.1 (09.01.95):
Chg: Locale.FormatDate() instead of Dos.DateToStr() and SPrintf() used.
Therefore the version bumps to 38!
Chg: 'Seconds/S' isn't supported anymore.
New: Option 'DF=DateFormat/K' -> Format of the date/time
New: Option 'MF=MemoryFormat/K' -> Format of the memory
New: Environment variable (ScreenClock) for the parameters

Release 1.0:
37.3 (05.01.95):
New: Option 'Memory/S' -> show the memory too.
Chg: Some internal changes -> less time needed!?
37.2 (03.01.95):
New: Option 'Screen/K' - pattern for screens to use.
New: A msg-port added to quit if double started.
37.1 (02.01.95):
Beginning, because I realised that the clock is the only cause
for KCX running;-)

Abbreviations:

New: Something new added.
Chg: Something has changed.
Fix: Some bugs removed.
Doc: Documentation changed/improved.

1.21 ScreenClock/How to contact me?

If you have suggestions, bug reports or any question you can reach me
by the following addresses, e-mail preferred!

Z-Netz: T.Igracki@BAMP.berlinet.de
FIDO : Thomas_Igracki%2:2410/309.34

UseNet: lokai@cs.tu-berlin.de -or-
 t.igracki@bamp.berlinet.de (preferred!)
Mail : Thomas Igracki, Siegener Str. 34, Germany-13583 Berlin

If you want to send me some money for my work on ScreenClock, then send it by cash or transfer it to the following bank-account:

Thomas Igracki
Account 860169138
Sparkasse Berlin
BLZ 100 500 00

Please add a note like "Gift for ScreenClock <Your name + email>".

If you send me an email, I will notify you if a new version is out and send it you if desired!

At least you should write me an email if like my program!

Have fun with my program!

1.22 SysInfo.library by Petri Nordlund

SysInfo.library

~~~~~

SysInfo.library was developed to bring together all the different utility programs that add some new features to Amiga task handling, like CPU usage calculation. SysInfo.library was first developed for Executive, but it's possible to rewrite it to support other similar programs. It's not necessary to support all SysInfo.library functions in all implementations.

Please consult the file 'SysInfo.doc' for more information.

The provided examples can be compiled with GCC or SAS/C.

You must copy the libs/SysInfo.library to your libs: directory.

Copy the include files to appropriate directory:

GCC:   GCC:os-include/  
SAS/C: INCLUDE:

If you're using GCC, you must also copy the files in gcc/lib/ to GCC:lib/ and files in gcc/os-include/ to GCC:os-include/.

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