

ScreenSelect

Version 2.2
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by Markus Aalto

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1 Introduction

In version 2 of Amiga operating system was introduced a concept of Public Screens. These screens can be shared by application programs just like Workbench screen has been in previous OS versions. Although they bring a great addition to Amiga they also introduce a problem to users which have Workbench, several Public and probably a few custom screens open at the same time. And the problem is - "How to get that xxx screen to front quickly without traversing through 5 other screens with `left-amiga m?`". Well, `ScreenSelect` is answer to that question because it opens a small window to the active screen after hotkey selection where you can select the new frontmost screen with just a click of the mouse. Also you can make hotkey bindings to any screen and for example get Workbench screen frontmost with only one key press. You can also select a new active window and get it to front from selected screen, change default public screen either with hotkey or let `ScreenSelect` to change every new frontmost public screen as default public screen automatically.

And the only requirement is that you have `Kickstart 2.04 (V37)` or greater. Some features (not all are visible to the user) take advantage of later kickstarts. Most important is the support for localisation.

The `ScreenSelect` main window uses `PopUpMenu BOOPSI` gadget class designed by me for free distribution. For those of you who are interested in using it in your own programs grab the `PopUpMenuC_1.1.lha` packet from Aminet ftp sites or write to me sending 5 US\$ (or 15 FIM) for postage & handling. see Appendix C [Contact address], page 16.

2 Installation

I have provided a script for Commodore's `Installer` program so if you have it then you should probably use it. Otherwise you can do following actions.

- Move `ScreenSelect` to `WBStartup` directory.
- Move `ScreenSelectPrefs` to `Prefs` directory.
- Move one of the doc files anywhere you normally store document files.
- If you want to use (Requires KS V38+) localisation feature, then copy the language dirs you want to use from `Catalogs` directory to `LOCALE:Catalogs` directory.

3 ToolTypes and CLI usage

ScreenSelect recognizes normal commodity tooltypes and one of its own.¹

'CX_POPUP=<YES|NO>'

This enables **ScreenSelect** to open its window when it's started. Default is no popup.

'CX_PRIORITY=xxx'

This is **ScreenSelect**'s priority as commodity. Here xxx is decimal number. Default is 0.

'CX_POPKEY=HOTKEY'

Default is **shift esc**. For example you could use **CX_POPKEY=alt shift del** to change hotkey. If you specify popkey here you override the settings you have made with **ScreenSelectPrefs** program.

'PREFSPROGRAM=PATH'

This is the path where preferences program is to be found. This name must include the name of the preferences program. Default **PATH** is **SYS:Prefs/ScreenSelectPrefs**. see Chapter 6 [Preferences], page 5.

4 Main Window

You can see the main selection window for **ScreenSelect** by pressing the user configurable hotkey. This brings you a small window with few buttons and a listview with names of open screens. Public screens all have identifiable names but there are programs which use custom screens and doesn't specify any name for it. Screens like that are shown as **(Nameless Screen)**.

'Quit' By pressing button (or **Q**) you can remove **ScreenSelect** and any patches it has installed.

'About' This gives you a small info about this program and its author (that's me :^).

'Prefs' This one opens the separate preferences program you can use to modify **ScreenSelect**'s behaviour. All changes come active instantly after you have exited preferences program with pressing either **Save** or **Use** buttons.

'Update' This one updates the listview and default pubscreen texts to reflect current system state. If you have installed **Auto Update** patches then **ListView** gadget, where the

¹ By using **Install** script provided with this release, you can set all the tooltypes at the installation phase.

screen names are located is updated automatically. However, the **Window Selector** gadget isn't so you might need to use this feature more than in previous releases. You can install the patches with **ScreenSelectPrefs** program. see Chapter 6 [Preferences], page 5.

'Listview gadget'

Click any of the names to get that screen to front. Single click just activates the name which you can then activate with **Activate** gadget. Double click makes an instant activation. You can also use cursor keys to move up and down in listview. Activation can be made from keyboard with **a** or **return** keys.

'Window selector gadget'

After you have selected a screen (with one click in Listview gadget) this gadget shows all the windows from that screen. If you press the gadget container a new menu is popped up and you can select one of the windows title names to get that window activated after the screen you have selected is brought to front. Selected window will be frontmost and if it's state was zoomed then it's unzoomed automatically.

'Default PubScreen'

This one shows the name of the default pubscreen. You can use the Preferences program to change the behaviour of Default Public Screen change feature. see Section 6.2 [Options], page 5

'Activate'

Activates the current listview selection and closes the window.

'Cancel' Closes the window and returns back to the screen where hotkey selection was made.

5 General Info

There are few special options you can change with preferences program. Here are brief explanations about them. see Chapter 6 [Preferences], page 5

'Screen Types'

Currently **ScreenSelect** can show only Public screens or all screens.

'AutoUpdate Patches'

This patches 4 Intuition functions to achieve automatic update in listview and in Default PubScreen textgadget. Patched functions are: **OpenScreen**, **OpenScreenTagList**, **CloseScreen** and **SetDefaultPubScreen**.²

² **OpenWindow** functions are not currently patched. If there is need for this then I can reconsider my decision in future releases.

‘Window Position Modes’

You can control the position of **ScreenSelect**’s main window with three possible options: **Fixed**, **Relative** and **SmartPointer**.

Fixed mode forces window to always open to some predefined coordinates.

Relative always tries to position the window so that pointer is over the **Activate** gadget.

SmartPointer first tries to position the window so that pointer is over the last selected screen name. If this isn’t possible it then forces pointer to move there.

‘Window Autoactivation’

You can set few options to control **ScreenSelect**’s behaviour with window activation.

If you have **Window AutoActivation** mode ON, it tries to activate window from screen you are changing to. It doesn’t work most of the times because it just examines the windows and tries to be smart when deciding which window to activate.

If also **Detect ActiveWindow Changes** is ON, then **ScreenSelect** ‘hears’ all the window activation changes. This helps you only with changes through **ScreenSelect**. If you change screen with **left-amiga m** **ScreenSelect** has no way of knowing that you have switched to a new screen except if you have added **Detect Frontmost Screen Changes** patch.

If **Detect Frontmost Screen Changes** patch is active then **ScreenSelect** can hear all the screen changes and can always change new active window. This option installs a patch to **LoadView** function in **graphics.library**. It’s a very time critical place and while I haven’t confronted any problems, it might be a source of problem for users with heavy animation needs. If you encounter any problems with animations you should first try to take this off before starting to look problems elsewhere.

So lets go all modes through one more time. **Window AutoActivation** activates autoactivation mode. **Detect ActiveWindow Changes** option enables **ScreenSelect** to remember all changes with active windows by installing a **InputHandler** to **Intuitions** input stream and **Detect Frontmost Screen Changes** enables to hear all the frontmost screen changes. For best possible operation I suggest you to select them all.

‘Default PublicScreen’

This controls the behaviour of Default Public screen changes.

Disabled - If selected then this feature is not in use. You can still see the **Default PubScreen** text gadget in **ScreenSelect** window.

Set By Hotkey - If selected then you can change new default public screen via Hotkey, which you must specify in Hotkey options window.

Frontmost PublicScreen - If selected frontmost Public screen is set as default one. Note that this option installs a patch to **LoadView** graphics.library function.

6 Preferences

6.1 Main Prefs

After you have started **ScreenSelectPrefs** you get a window very similar to the system preferences program. All the actions from menus and **Save**, **Use** and **Cancel** buttons are exactly the same as in system programs so they are not explained here. Please consult your AmigaDOS manual for more info.

However there are two buttons labeled as Section 6.2 [Options], page 5 and Section 6.3 [Hotkeys], page 6. These are the buttons you should press to get one of the real preferences change windows.

6.2 Options

In this window are all the options settings.

‘Screen Types’

Selects one of the operation modes. In **Public Only** mode **ScreenSelect** uses only Public screens. In **All** mode all screens are used.

‘Add AutoUpdate Patches’

Toggles the state of AutoUpdate patches.

‘Window Position’

Changes window position mode. Possible modes are **Fixed**, **Relative** and **SmartPointer**. In **Fixed** mode you can set the coordinate values to **Left** and **Top** numeric gadgets.

‘Window AutoActive Options’

You can select which level of AutoActivation you want. If you specify all three of them you get complete automatic window activation in your system. If Window AutoActivation is OFF then you can’t select either **Detect ActiveWindow Changes** or **Detect Frontmost Screen Changes**.

‘Default Public Screen (DefPubScreen)’

You can pick one of the 3 choices for this one. If you select **Disabled** then you can’t change DefPubScreen from **ScreenSelect**. If you select **Set By Hotkey** then you can change DefPubScreen via hotkey, which you must specify in **Hotkeys** preferences window. And if you select **Frontmost Public Screen** then everytime you change a frontmost screen (which has to be a Public screen) then **ScreenSelect** selects it as a DefPubScreen.

‘OK’ This one confirms all the changes and returns back to Preferences main window. Note that these changes are not used yet. You have to make global confirm with **Save** or **Use** buttons.

‘Cancel’ This one cancels all the changes.

6.3 Hotkeys

In this window are all the hotkey settings.

‘PopUp Key’

Used as hotkey for **ScreenSelect**. You can override this setting with **CX_POPKEY** tooltype.

‘Default PubScreen Key’

If you have DefPubScreen option set to **Set By Hotkey** then you have to specify the Hotkey here.

‘Add’ Used to add new Screen Quickkey.

‘Delete’ Used to delete selected Screen QuickKey.

‘Screen QuickKeys’

List of screens you have set a Screen QuickKey for. Names can contain AmigaDOS patterns. For example **TERM?** can mean **TERM1** or possibly **TERM2**. All standard AmigaDOS patterns are accepted. This is great help when trying to make a QuickKey for some old programs using custom screens.

‘QuickKey’

Hotkey for selected Screen QuickKey.

`'OK'` Confirm changes.

`'Cancel'` Cancel changes.

7 StickySelect

I have had several requests to exchange the interface to do some operations differently. Because some of these have been contradictory or in my opinion not something I like to add to **ScreenSelect** I have made it possible for external programs to use **ScreenSelect**'s selection mechanism. Now everybody can write a replacement for **ScreenSelect**'s interface.

The first program to utilize this possibility is **StickySelect** which opens a small window to any public screen with a list of selectable names - just like the one in **ScreenSelect**'s interface. However this window doesn't go away when you make a selection. Instead it just sits there and wait's for new selection. You can open as many as you like to different public screens as long as **ScreenSelect** is started before **StickySelect**. Here are the parameters.

`'PUBSCREEN=<>'`

 Name of the Public screen you want **StickySelect** to open.

`'LEFT=<>'` Window left edge position.

`'TOP=<>'` Window top edge position.

`'WIDTH=<>'`

 Window width.

`'HEIGHT=<>'`

 Window height.

If you would like to implement your own interface to communicate with **ScreenSelect** you can modify the source I have provided for **StickySelect**. I haven't commented the code much so if you have any trouble with it don't hesitate to contact me. see Appendix C [Contact address], page 16.

8 Misc

This is a common procedure **ScreenSelect** makes when it hears about hotkey selection.

```
if hotkey pressed then
    if active screen is public screen then
        lock it and open ScreenSelect window into it.
    else
        lock default public screen and open window to it.
```

So this means that `ScreenSelect` window isn't opened to foreign applications screen. It's only opened to public screens. This may annoy some users but I made this decision to make `ScreenSelect` more system friendly. Remember that if you select new frontmost screen then there really isn't much harm done. And even if you just press `Cancel` gadget you get always back to your old frontmost screen.

`ScreenSelect` also tries to make sure that all screen pointers passed back to OS, are always valid. This is easy with public screens but requires little more work with normal screens. I hope I got it right!

Appendix A History

A.1 Version 1.0

First release 07-Sep-1992.

A.2 Version 1.1

This version was not released. Compilation date was 14-Sep-1992.

- Changed **Workbench** tooltypes **CX_POPUP** and **ALLSCREENS** to simple switches. They are normally OFF, but if you specify one of them then that option comes ON.
- Added **SMARTPOINTER** option. When this one is active **ScreenSelect** always tries to position mouse pointer over previous screen selection. This makes it very easy to bounce between two screens.

[Suggested by Sfean Boberg]

- Added **QUICKKEYS**. Now you can bind own hotkey to every public screen. This should be used only with public screens. Although it might work with all screens I don't support it.

[Suggested by Stefan Boberg]

- Now if **ScreenSelect**'s window is active (open) when hotkey is pressed then that window's screen is brought to front.
- Added menus to **ScreenSelect**'s window. Now most of the features are selectable with Menu command keys.
- Added **About** window to show some information.
- Now previous screen's name is shown in listview gadgets selection area automatically. This makes screen bouncing very easy as **SMARTPOINTER** option does.
- Now **Activate** and **Cancel** gadgets have keyboard shortcuts.

[Keyboard shortcuts were suggested by David Corn]

A.3 Version 1.1a

Compilation date was 23-Sep-1992.

- Fixed a bug which happened when `SMARTPOINTER` option was ON and screen font was too big to be used in `ScreenSelect`'s window and we had to use `topaz80`. This caused pointer to be moved to wrong position.

A.4 Version 1.1b

Compilation date was 13-Oct-1992.

- Just changed a initial window height from 94 pixels to 96. Now normal `topaz80` font shouldn't cause window resizing when only `Workbench` (or screen names of similar lenght) is in a list.

A.5 Version 1.2

Compilation date was 07-Dec-1992.

- Previously `ScreenSelect` exited when it couldn't find screens. This made it impossible to put it in `Startup-Sequence` or `User-Startup` file before `Workbench` screen is opened.
[Reported by Andreas M. Kirchwitz]
- From now on, version number format should be Amiga Style Guide compliant.
- Added `AUTOACTIVATE` option.
- Added `SCREENKEY` option which allows easy default public screen selection with hotkey.
- Added `Default PubScreen` text gadget.
- First version compiled with SAS/C V6.1. Size reduced almost 2k compared to V1.1b.

A.6 Version 1.3

Compilation date was 27-Jan-1993. Not a public release.

- Now listview is opened as wide as widest screen name. This works correctly with proportional fonts too.

A.7 Version 1.4

Compilation date was 02-Feb-1993. Not released.

- Now gadget sizes are calculated before window is opened. So now **ScreenSelect** window opens to the correct size initially.
- Added **LEFT** and **TOP** tooltips and CLI-parameters.
- Now if **SMARTPOINTER** option is **ON** then **ScreenSelect** tries to position window according to the mouse pointer. And only if it fails to properly do so it moves mouse pointer to the correct position.
- Now **ScreenSelect** installs a input-handler to watch for **WINDOWACTIVE** messages, and we can properly activate right window when new screen is brought to front by **ScreenSelect**.

A.8 Version 2.0

Compilation date was 08-Aug-1993. Major update.

- Whole interface code rewritten.
- Moved settings to separate preferences program.
- Added support for AmigaDOS patterns in QuickKey screen names.
- Added Relative Window Position mode.
- Moved all the patches to main program. Now patches are removable.
- Added LoadView patch.
- Added support for StickySelect.
- Possibly forgotten something, but changes were too big to describe them fully in here.

A.9 Version 2.1

Compilation date was 03-Oct-1993. Mainly bugfixes.

- Fixed an enforcer hit in AutoActivation checking code.
- Screens with empty Title names (not **NULL**, but filled with spaces) made **ScreenSelect** to crash. Yes, I know, this sounds unbelievable!

- If popup hotkey is pressed when ScreenSelect window is already open then ScreenSelect window is activated.
- If LoadView patch was installed and hotkey was pressed in non-public screen, then ScreenSelect window didn't stay active after it was opened.
- Added keyboard support for ScreenSelect's listview gadget. Return activates selection and cursor keys are used to change selection.
- If QuickKey is pressed while ScreenSelect window is open, then screen name binded to that QuickKey is selected in listview.
- If AutoUpdate patches are not active internal Screen list is updated everytime QuickKey is pressed. This fixes problems with QuickKeys and screens opened after last ScreenSelect activation.
- Now ScreenSelect window is closed before we select new frontmost screen. This fixes a problem introduced by 4th fix (LoadView patch fix) in this release.
- Fixed a bug with SMARTPOINTER option, which happened with similar screen names which contain characters out of range of ordinary alphabets. This bug was introduced because of AmigaDOS pattern matching routine not handling characters as '©' and didn't happen before version 2.0 of ScreenSelect.
- Added changes to internal string handling. Now it will be very easy to add localization support.

A.10 Version 2.2 (ScreenSelectPrefs 1.1)

Compilation date was 30-Jan-1994.

- Added localization of strings and keyboard shortcut keys for gadgets.
- Added notification of Locale Preferences. When new language is changed ScreenSelect will recognize it automatically and try to allocate new catalog.
- If Public Screen was in PRIVATE mode, then ScreenSelect couldn't lock that screen and wasn't able to get it front. This is fixed.
- ScreenSelect and ScreenSelectPrefs programs support system BusyPointer under KickStart version >=39.
- In V1.1 I changed the CX_POPUP to switch. Now it's changed back to key string. Keywords TRUE or YES makes ScreenSelect to open its window when it's started. This change was requested.
- Few cosmetic changes to ScreenSelect and ScreenSelectPrefs.
- Added new option to change Default Public screen. Now every new frontmost Public Screen can automatically be a Default Public screen. Added MX buttons to ScreenSelectPrefs to support this new feature.

- Added Window selector through the use of PopUpMenuClass which contains all the windows for specific screen and by selecting one window it can be activated and the window brought to front. Also windows which are in zoomed state are 'zipped' to maximum size.
- Fixed a small bug in Screen Title name copying code which was a cause of one Mungwall hit.
- In KS ≥ 39 ScreenSelect uses system provided memory Pool functions for most of the memory allocations. This reduces memory fragmentation.
- StickySelect interface changed to ensure future compatibility.

Appendix B Contents of ScreenSelect distribution

Here are listed all files and directories in current version 2.2 distribution. These files should always be present when ScreenSelect is distributed.

```
ScreenSelect (dir)
  Docs (dir)
    ScreenSelect.doc

    ScreenSelect.doc.info

    ScreenSelect.dvi

    ScreenSelect.dvi.info

    ScreenSelect.guide

    ScreenSelect.guide.info

  StickySelect (dir)
    StickySelect

    StickySelect.info

    StickySelect.c

    StickySelect.c.info

    StickySelect.h

    StickySelect.h.info

  Catalogs (dir)
    suomi (dir)
      screenselect.catalog

    svenska (dir)
      screenselect.catalog

  Docs.info

  Catalogs.info

  StickySelect.info

  ScreenSelect

  ScreenSelect.info
```


ScreenSelectPrefs

ScreenSelectPrefs.info

Read_Me

Read_Me.info

Install.info

ScreenSelect.Install

ScreenSelect.info

Appendix C Contact address

If you really think that this program is great and you use it extensively then you can make me very happy by sending me something for a return. If you are for example a author of some software package (Commercial, Shareware, Giftware or anything) you could send me a free program as an exchange of this program. If you don't feel like it, it doesn't really matter. It would just make me more enthusiastic as I continue to implement new versions. Then again if you feel like sending a donation in US\$, Deutch Marks or Finnish Marks I even might have afford to join Commodore's official developer program someday and you might get Online-help support etc... implemented to `ScreenSelect` much faster that otherwise. Anyway, thank you for using this program!

For suggestions, bug reports etc... You can reach me at

- Internet

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- SnailMail

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Appendix D Future

Next release will propably implement an AmigaGuide online-help. How about ScreenCenter utility?

**** URGENT URGENT ****

If you are willing to do the locale translation for future versions of **ScreenSelect** please contact me with EMail. There are less than 100 strings to translate. see Appendix C [Contact address], page 16. You are also welcome to translate the documentation for current and future versions. Again contact me with EMail to obtain the TeXinfo file.

I currently have English, Finnish and Swedish locale translations ready.

**** URGENT URGENT ****

Appendix E Acknowledgements

Thanks to everyone who has submitted bug-reports or given me good suggestions for how to improve this program. Also big thanks to everyone who has send me money, even though it wasn't requested.

Thanks to Magnus Holmgren for Swedish translation and all the bug reports.

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