

AAVD

Jimmy Westerlund

COLLABORATORS

	<i>TITLE :</i> AAVD		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
WRITTEN BY	Jimmy Westerlund	July 20, 2024	

REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

Contents

1	AAVD	1
1.1	Almost A Virtual Desktop 1.5	1
1.2	AAVD Disclaimer	1
1.3	Distrubition	2
1.4	How to install AAVD	2
1.5	What is AAVD anyway?	3
1.6	Using the Menus	4
1.7	How to use AAVD	5
1.8	Using the Keyboard	7
1.9	Configuration Window	8
1.10	Technical info about AAVD	9
1.11	Nobody is perfect	12
1.12	What will (may) happend in the future	12
1.13	How it all used to be	12
1.14	Reporting Bugs	15

Chapter 1

AAVD

1.1 Almost A Virtual Desktop 1.5

Almost A Virtual Desktop

by
Jimmy Westerlund

1.5 1995-04-30

For V37+ only

~~~~~Disclaimer~~~~~  
~~~~~Distrubition~~~~~  
~~~~~Installation~~~~~  
~~~~~What~is~AAVD?~~~~~  
~~~~~Usage~~~~~  
~~~~~Menus~~~~~  
~Using~the~Keyboard~
Configuration~Window
~~~Technincal~info~~~  
~~~~~Bugs~~~~~  
~~~~~Future~~~~~  
~~~~~History~~~~~  
~~~~~Bug~Reports~~~~~

See History for changes done in this version.

### 1.2 AAVD Disclaimer

#### DISCLAIMER

AAVD is freeware. This means that you may do anything you like with it as long as you don't try to make money on it. And, of course, you cannot hold me responsible for any kind of damage that AAVD may cause.

Words like OLWWM, Solaris, UNIX and LINUX are some kind of

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registered trademarks of Sun Microsystems, AT&T and such.  
I haven't bothered to find out just which belong to who,  
but I don't believe anyone will get pissed off and sue me...

My address

I, who wrote this, can be reached at the following address:

E-Mail: `ing9435@to.mh.se`

or, if you're oldfashioned, or just unlucky, at:

Jimmy Westerlund  
Ringvägen 15  
890 42 Mellansel  
SWEDEN

Here you can send bugreports, tips, questions, suggestions,  
or just a note that says that you are using AAVD (it's always  
nice to know that there really are people out there using  
your stuff :-).

## 1.3 Distrubition

Distrubition

In this version of Aavd you will get the following files:

|                 |                                    |
|-----------------|------------------------------------|
| Aavd            | - This is the program itself.      |
| Aavd.info       | - An icon.                         |
| Aavd.guide      | - This doc.                        |
| Aavd.guide.info | - Documentation icon.              |
| Install         | - An installation script.          |
| Install.info    | - An icon that executes installer. |
| fonts/aavd.font | - A nice(??) small font.           |
| fonts/aavd/6    | - This font data.                  |

You one or more of these files are missing, then (obviously)  
your archive isn't complete. If you want a complete archive,  
then mail me a letter (preferably e-mail) and I'll send you the  
latest release. [Click~here](#) to get my address.

## 1.4 How to install AAVD

Installation

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Installing Aavd is about as simple as it can get. Double click on the "Install" icon and Aavd will install itself.

For all of you that rather installes by hand, all you've got to to is copy "Aavd" and "Aavd.guide" to some logic place and the contents of "fonts" to, for example, "fonts:".

## 1.5 What is AAVD anyway?

### Description

Have you ever used the OLVWM window manager for x-windows (used mostly under SUN OS/Solaris and LINUX).

Then you've noticed the Virtual Desktop window, and know what it is used for. If you don't, just run this program and you will soon find out what it does.

AAVD will open a window that shows a miniature of the default public screen (usually the Workbench) where each "box" represents a window. From the AAVD window you are able to:

- o move a window
- o resize a window
- o activate a window
- o depth arrange a window
- o center the screen over a window
- o center the screen over a part of the screen
- o and some more...

I have tried to use the common mouse techniques in AAVD, this means that if you want to activate a window, click on the left mouse button, to drag, just drag as you use to do. You can even cancel the operation with the right button. See below for a list of what you can do, and how to do it.

- o How to activate a window:
    - Click the left button.
  - o How to move a window:
    - Press the left button, move the window to it's new position and release the button. This operation is canceled if the right button is pressed before the left is released.
  - o How to depth arrange a window:
    - Click on the right button.
    - The window will be move to the front, unless it's already at the front, in which case it will be moved to the back. This is not as smooth as clicking on the depth gadget on the window, since I've not figured out how to determine if a window is covered by another window.
  - o How to resize a window:
    - Press the right button, move the mouse and release the button when you're done. The left button can be used to
-

cancel this operation.

- o How to center the screen over a window:  
Double click with the left button on the window.
- o How to center the screen over a part of the screen  
Double click the left button on the part of the screen you want to center. Make sure you dont click on a window.
- o How to use the menus  
Since AAVD uses the right mousebutton to depth arrange windows there are one minor problem when you also wants to use menus. Both needs the right button to be pressed.

Therefore, when you wants to use the menus, you MUST place the pointer ON the windowborder or OUTSIDE the window.

That's about it. Not very hard to learn, was it...

## 1.6 Using the Menus

### Menus

In order to be able to view the menus you MUST press the menubutton OUTSIDE, or ON the borders of the AAVD window. That's because AAVD normally uses the right mouse button to resize/depth arrange windows.

```
+-----+-----+
| Project      | Special      |
+-----+-----+
| Use Current  U| Reject This Screen R |
| Save Current S+-----+
| Prefs        P|
| About        |
|=====|
| Quit         Q|
+-----+-----+
```

### The Project Menu

- o Use Current (Left Amiga-U)  
This has the same effect as if you would press USE from the configuration~window. The reason for this to be in the menu is that there should be a simple and fast way to use new snapshots. (That is, save them to ENV:).
- o Save Current (Left Amiga-S)  
Saves the current settings.
- o Prefs (Left Amiga-P)  
Opens the configuration window.
- o About  
About AAVD.

- o Quit (Left Amiga-Q)  
Well, I guess it speaks for itself...

### The Special Menu

- o Reject This Screen (Left Amiga-R)  
Selecting this menu adds the active screen to the list of screens Aavd shouldn't be allowed to open on. The main reason for this menu is that some pubscreens (for example DirOpus) can't be closed while Aavd is visiting the screen. Instead of manually specify that Aavd shouldn't be allowed to use this screen, simply select this menu and close the screen (program).

## 1.7 How to use AAVD

### How to use AAVD

AAVD can be started both from shell and from workbench. Items marked with a 'W' can be use as a tool type and items marked with a 'S' can be used from shell.

### Keywords:

The following options requires some extra info, for example XPOS=100.

|     |             |                                                                                                                     |
|-----|-------------|---------------------------------------------------------------------------------------------------------------------|
| W S | PUBSCREEN   | Name of the pubscreen to open AAVD on, default is the default public screen (usually Workbench).                    |
| W S | XPOS        | X position top open the AAVD window on. -1 means the first visible xpos.                                            |
| W S | YPOS        | Y position. -1 means the first visible ypos.                                                                        |
| W S | WIDTH       | The width of the AAVD window.                                                                                       |
| W S | HEIGHT      | The height.                                                                                                         |
| W S | FONTNAME    | Used to specify what font to use when printing the windowtitles. Defaults to aavd.font.                             |
| W S | FONTSIZE    | Use this to specify what font size to use. Default is 6.                                                            |
| W S | SECS        | Number of seconds between timedependent events.                                                                     |
| W S | MICS        | Number of microseconds between timedependent events.                                                                |
| W S | ACTIVATEKEY | Hotkey used to activate AAVD. Default is <Shift Lcommand Space>.                                                    |
| W   | SNAP#x      | What hotkey used to snapshot a screen position. x may be 1 to 4. Default is <rawkey Shift F1> to <rawkey Shift F4>. |
| W   | RECALL#x    | What hotkey used to recall a snapshotted screen position. x may be 1 to 4. Default is <rawkey F1> to <rawkey F4>.   |



## Switches

These options is activated just by entering their names, for example 'aavd NOTEXT' to activate NOTEXT.

|     |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W S | NOSCREENDRAW     | When you drag or resize a window, then no box will appear around the real window, but only in the AAVD window.                                                                                                                                                                                                                                                                                                                                  |
| W S | NOBACKDROP       | Ignore all backdrop window. Usually the Workbench window is backdrop.                                                                                                                                                                                                                                                                                                                                                                           |
| W S | NOAAVDWIN        | Ignore the AAVD window in the AAVD Window(?).                                                                                                                                                                                                                                                                                                                                                                                                   |
| W S | NOTITLEBAR       | This will open AAVD without titlebar, close-, zoom-, and depthgadgets. Used together with LOCKSIZE this will result in a window with minimal borders.                                                                                                                                                                                                                                                                                           |
| W S | JUMPSCROLL       | When this switch is used, then AAVD will force the screen to scroll "whole" screen parts instead of single pixels when the user scrolls the screen. For example, if you got a screen that is twice as wide as the visible part, then you will in the beginning see the left part of the screen. If you now scrolls the screen some pixels to the right, AAVD will move the entire screen so that you'll see the whole right part of the screen. |
| W S | NOTEXT           | Don't print the window titles in the boxes.                                                                                                                                                                                                                                                                                                                                                                                                     |
| W S | SAFE             | This means that you cannot move a window who got no dragbar, resize a window without a sizedgadget, deapth arrange a window without a depth gadget or make a window smaller/larger then it's minimun/maximun size.                                                                                                                                                                                                                              |
| W S | LOCKPOS          | This locks the position of the AAVD window. With other words, you can't move it.                                                                                                                                                                                                                                                                                                                                                                |
| W S | LOCKSIZE         | Opens AAVD without a resizing gadget.                                                                                                                                                                                                                                                                                                                                                                                                           |
| W S | FOLLOW           | This tells the AAVD window to follow the visible screen when you scroll it.                                                                                                                                                                                                                                                                                                                                                                     |
| W S | DEVIDE           | This option devides the AAVD window into a number of smaller windows. Each of those windows represenent a piece of the screen that is the same size as the visible part of the screen. If you didn't get it, just try it...                                                                                                                                                                                                                     |
| W S | NOSCREENBOX      | Don't draw the box that tells you where the visible part of the screen is.                                                                                                                                                                                                                                                                                                                                                                      |
| W S | SCREENBOXINFRONT | Draw the screenbox in front of the window boxes, instead of below.                                                                                                                                                                                                                                                                                                                                                                              |

## Commoditie standards

|     |             |                                                                             |
|-----|-------------|-----------------------------------------------------------------------------|
| W S | CX_PRIORITY | Sets the priority of the commoditiy. Default is 0.                          |
| W S | CX_POPUP    | Use this if you want to open the configuration window when AAVD is started. |

W S CX\_POPKEY                      This specifies what hotkey that should be used to open the configuration window. Default is <ctrl f1>.

(W) Can be used from Workbench.  
(S) Can be used from shell.

#### Hot Keys

These are the default hotkeys used by AAVD.

Ctrl-F1 : Show the AAVD configuration window

Shift-F1 to

Shift-F4 : Snapshow screen position 1 to 4.

F1 to F4 : Recall screen position 1 to 4.

Shift-Left Amiga-Space : Activate and center AAVD window.

#### Examples

- o The simplest way to start AAVD...

```
> aavd
```

- o To open AAVD on a specific position with a specific size...

```
> aavd XPOS = 50 YPOS = 30 WIDTH = 150 HEIGHT = 75
```

Open AAVD on position (50,30) width the width 150 and the height 75.

- o To open AAVD on the first Directory Opus screen...

```
> aavd PUBSCREEN = DOPUS.1
```

DOPUS.1 is the name of the first DirOpus screen.

- o To open AAVD in the topleft corner of the visible part of the screen, making it impossible to move the window around and make it follow the screen when it is scrolled...

```
> aavd XPOS = -1 YPOS = -1 LOCKPOS FOLLOW
```

#### NOTE

All of the above switched can be changed from the configuration window. You open that window by pressing <CTRL-F1> or selecting the <Show Interface> button from the 'Exchange' tool.

## 1.8 Using the Keyboard

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## Keyboard

There are some windowmanipulating operations that may be done from the keyboard.

Make sure that the AAVD window is active, then place the pointer over the window you wish to manipulate and press one of the following keys:

z or Z : Zooms a window. Has the same effect as if you would have pressed the Zoom gadget on the window.

k or K : Closes (kills) a window. The window under the pointer will be closed.

M : Maximize the window.

m : Minimize the window.

Cursor keys : Jumps to next "virtual" screen. This will work best if the screen is of a multiple size of the visible area, i.e. a normal PAL screen should have the size  $(x*640)*(y*256)$  where x and y are integers. For example, a PAL screen with the size 1920\*512  $(3*640)*(2*256)$  will have 6  $(3*2)$  "virtual" screens.

Shift Up : Changes to the next allowed screen.

Shift Down : Changes to the previous allowed screen.

## 1.9 Configuration Window

### Configuration Window

The configuration is divided up into a number of pages. On top of each page you will find a number of buttons used to switch to other pages, and on the bottom is the buttons Save, Use and Cancel.

#### o Page 1

On this page you will find the snapshot/recall hotkeys.

#### o Page 2

Here you will find all configuration switches.

#### o Page 3

This is the page where you enter which screens AAVD is allowed/not allowed to be in. For AAVD to be able to open on a screen, the screen name must be specified in the Allowed list and may not be in the Rejected list.

---

Ordinary wildcards, such as #, ?, \*, [], is supported.

- o Page 4

Here is some various stuff, such as activation/popup hotkeys, starting size of the AAVD window, time intervall between time dependent events. Note the Grab button that grabs the current AAVD windows size and position and puts it in the size/position gadgets.

- o Page 5

On this page you may specify what colors AAVD sould use.

From V1.5 there is also menus attached to this window. They look, and work, like ordinary prefsmenus.

The configuration window is designed to fit into a lowresolution NTSC screen and uses the Topaz 8 font. The reason for this is that writing font- and screensizeindependent GUI's take too much time and is extreamly boring (trust me). To all of you running a megasuperhires-twice interlaced screenmode, all I can say is sorry..

In any case, you don't really have to use the config window THAT much...

I will problaby write a MUI version of AAVD later on.

## 1.10 Technical info about AAVD

Technical info.

AAVD patches some of the rom routines to find out when a window is moved, resized, depth arranenged, opened, closed and so on. The patch is very simple, first it calls the original routine and then it will signal the AAVD task so that the AAVD window may be updated.

Here's a list of the routines that will be patched:

```
from intuition.library:
```

```
    OpenWindow()
    OpenWindowTagList()
    CloseWindow()
```

```
from layers.library
```

```
    MoveSizeLayer()
    BehindLayer()
    UpfrontLayer()
```

Because of these patches, it may be possible that AAVD doesn't work to well with other programs that patches these routines.

You can only run one AAVD at a time. This because of the patches. If you, for example, should start two AAVD's at the same time (A and B), then AAVD A will get pointers to the original routines, and AAVD B will get the pointers to AAVD A's routines. It will probabaly work without problems so far. The problem is that if you should quit AAVD A before AAVD B the following will happen:

when AAVD A quits, it will restore the original routine pointers. This means that AAVD B will no longer receive signals when windows are moved, opened, resized and so on.

And when you then quits AAVD B, it will restore the pointers to how it looked when it was started (to AAVD A's routines). AAVD A's routines will now be deallocated by the system, and the next time the system calls one of these patched routines you will get a GURU!!!

#### Warnings

Since AAVD make these pacthes, there are some things that you ought to know. For example, what may happen if another program patches one of these functions too?

If that's the case, here what to do...

- 1) Don't use AAVD and that other program at the same time, that's the simplest way to avoid trouble (read crashes).
- 2) Start both the programs, and keep them running. This should work just fine too. There are only trouble if you try to quit AAVD or that other program.
- 3) If you want to quit AAVD or the other program, make sure you start it last. In this case, everything should be alright.
- 4) If you got to this point, my advise to you is this. ALWAYS start AAVD first. If you want to close AAVD, AAVD first checks too see if the functions has been repatched. In this case, AAVD will display a requester with a warning. You may now either take you chance and quit directly, or make a delayed quit. With a delaied quit means that AAVD checks the patches every second, and as soon as all function safely may be repatched AAVD will quit. The disadvantage is that it's possible that the patches never will be restored, in which case AAVD will wait forever and never quit (you are left with an unuseable window). A direct quit, however, will probabaly crash the machine when the patches has been restored, since this will result (sooner or later) in a call to unused memory.

#### Timer based events.

Some events cannot be monitored by patches, since the system doesn't call a function. This events must thererfore be checked now and then. These are the events that are checked every 125000

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microsecond (by default).

- o If the user has activated another screen, then if that screen is either public or the workbench AAVD will move the window to that screen. From V1.4 of AAVD you may specify exactly what screens AAVD should be allowed to open on. See GUI for more info.
- o If the screen has been scrolled, then AAVD will redraw the window. If the FOLLOW template is used, then AAVD will also move the window.
- o If the user has activated another window, then redraw the AAVD window.

The time of 125000 microseconds can be changed with the SECS and MICS keywords.

### Screen Layer Locking

Whenever a window is moved or resized (from the AAVD window), AAVD will lock all the layers on the screen with `LockLayers(screen->LayerInfo)`.

This means that all output will be frozen on that screen when you move a window, exactly as it will do if you, for example, moves a window the "real" way.

This is done to prevent trash to be left on the screen after AAVD has drawn the border over the real window.

So, if there should be any problems where AAVD suddenly freezes the system (pointer stuck, no guru and so on) the problem surley has something to do with this locking, (the layers where for some reason not unlocked). If this should happen, PLEASE, send me a letter where you describe how you managed to do this.

### Closing a window

By pressing 'k' on the keyboard you may close a window from AAVD. AAVD sets up a temporary messageport and create a fake `IDCMP_CLOSEWINDOW` message that is sent to the windows UserPort. This will work without problem for the very most of the windows, but NOT for CON: windows, for some reason. This means that you cannot close, for example, a shell window from AAVD.

### Jump scroll switch

When this switch is used, AAVD checks for small screen movments to detect if the screen should be scrolled. Unforntally this only works for autoscroll screens. Therefore AAVD forces the screen to autoscroll by setting the AUTOSCROLL bit in the screen->Flags field. If this is ok to do, or not, can be discussed. It does seem to work without any problems (at least it has for me), but IF you should encounter any problems, dont use JUMPSCROLL and

AAVD will never touch screen->Flags. If you still want to use JUMPSCROLL, drop me a letter and I'll send you a copy if AAVD where this behavior is disabled...

## 1.11 Nobody is perfect

### Known bugs

There is no keyboard shortcuts to the listview gadgets on page 3 of the configuration window.

You can't move windows that are of full width or height.

Selecting the Reject~This~Screen menu should also move Aavd to another screen.

## 1.12 What will (may) happen in the future

### Future

I havn't decided what to do if the user doubleclick the right button, any ideas??

And maybe I will make a MUI version of AAVD later on, some time...

Find out why you can't close CON: windows.

Improve the way JUMPSCROLL works.

Add some more keyboard commands.

Maybe an Arexxport??

## 1.13 How it all used to be

### History

1.5 1995-04-30

Added the NOTEXT switch and the FONTNAME and FONTSIZE keywords. Aavd will now print the windowtitle in each box, using the font specified by FONTNAME and with the size FONTSIZE. This printing can be disabled by using the NOTEXT switch. Thanks to David Balazic for this idea.

Added a small feature to the FOLLOW option. When the screen is scrolled more then 1/15th of the width or height, then the Aavd window is also moved up to the front. Thanks to David Balazic for the idea.

---

Added the JUMPSCROLL switch. I think this is what Stephen Champion wanted me to include...

Added prefs-like menus to the configuration window.

Added the Reject~This~Screen menuitem.

Removed all (I think) enforcer hits (guess who just bought a 50MHz 68030 :-).

Added some new keyboard-comands.

Removed a couple of minor bugs.

Tiny improvements to the graphics.

#### 1.4 1995-03-01

Removed a bug that frooze the system when the FOLLOW switch was used and you tried to move a window in such a way that the screen was scrolled.

Added the maximize and minimize keyboard commands.

Added cursor~key support.

Added the Activation hotkey.

Now you're able to select what colors to use, and because of this the NOFANCY switch is no longer needed and therefore removed.

Added some more menuitems, Use Current, Save Current, Prefs and About.

The snapshots are now saved. Thanks to Thomas Pazourek for this idea.

Removed the possibility to choose how to disable AAVD. Instead AAVD is now truley disabled.

Rewrote the GUI once more...

Fixed some minor bugs.

#### 1.3 1995-02-01

Made the patches safer. Now you will be asked how you want to quit if some of the functions AAVD has pacthed has been patched again after AAVD was started. Either you can quit as normal, or wait until the patch has been removed.

You will also be warned if AAVD suspects that a program is executing code in AAVD's patches.

---



Rewrote the GUI. Now it isn't fontsensitive anymore :-)

Added support for tool types, that is, AAVD can now be started from WB. Thanks to Thomas Egeter for this idea.

Added menus. These are activated when you press the right mousebutton on the border or outside the window.

Added the switch 'No title bar' (NOTITLEBAR from shell). Thanks to Thomas Egeter (again) for the idea.

Fixed the 'Safe' switch.

Changed the way of how "resize" works. Now the bottomright corner of the window will be on the mouse pointer.

AAVD no longer draws the screen box outside the screen. Thanks to Nicolas Dade for reporting this bug.

AAVD now locks all the layers on the screen before drawing the screenbox. This was suggested to me by Nicolas Dade.

The Screen Box is now drawn in recessed 3d, unless the NOFANCY switch is used.

Added the DEVIDE switch.

Added keyboard support, and the Zoom and Kill keys.

Removed the bug when a box was left in the AAVD window if AAVD was inactive when the window manipulation was started.

Now AAVD can be disabled from the Exchange tool.

#### 1.2b 1994-11-12

Minor bug fixed. Forgot to remove the text 'PRE-RELEASE' from the window's title bar.

#### 1.2 1994-11-07

Turned AAVD into a commodity. Now you can snapshot up to 4 positions and recall these positions later. Thanks to Kimmo Veijalainen for this idea.

AAVD no longer freezes the system when it fails to open the window. Thanks to Janne Saarni for reporting this bug.

Removed some other serious and not so serious bugs.

#### 1.1 1994-10-09

Fixed small bug when using the NOFANCY option. The color of the active window is now white, and not, as before, grey.

---

Slightly modified the patch routines. Now AAVD will never redraw the window if an action fails, for example, someone tried to open a window, but failed for some reason.

V1.0 1994-06-26

First version released.

## 1.14 Reporting Bugs

Bug Reports.

There are some things that I wish you to think of if you should encounter a bug, and feel that you would like to share it with me.

First of all, it's always nice to know which version of Aavd you are using. I really hate searching for bugs that have already been fixed :-)

Second, try to describe exactly how you managed to get the bug. A simple statement saying "It doesn't work." won't help me much.

Check the Known~Bugs section. If the bug already is known, then there's really no point in reminding me. (But you could still send me a letter :-)

If you are running some other "strange" utils, then check if Aavd will work better if you don't run them. It might happen that Aavd doesn't work together with another program, although this should be very rare.

The hardware you're using could also be of interest. Especially your OS version.

Feel free to comment the language in this doc :-)