

AAVD

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	<i>TITLE :</i> AAVD		
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Contents

1	AAVD	1
1.1	Almost A Virtual Desktop 1.3	1
1.2	AAVD Disclaimer	1
1.3	How to install AAVD	2
1.4	What is AAVD anyway?	2
1.5	How to use AAVD	3
1.6	Using the Keyboard	5
1.7	Configuration Window	6
1.8	Technical info about AAVD	7
1.9	Nobody is perfect	10
1.10	What will (may) happend in the future	10
1.11	How it all used to be	10

Chapter 1

AAVD

1.1 Almost A Virtual Desktop 1.3

Almost A Virtual Desktop
by
Jimmy Westerlund
1.3 1995-02-01

For V37+ only

~~~~~Disclaimer~~~~~

~~~~~Installation~~~~~

~~~~~What~is~AAVD?~~~~~

~~~~~Usage~~~~~

~Using~the~Keyboard~

Configuration~Window

~~~Technincal~info~~~

~~~~~Bugs~~~~~

~~~~~Future~~~~~

~~~~~History~~~~~

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.

My address

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

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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 How to install AAVD

Installation

Unfortnnelly AAVD doesn't come with a Commodore installer installation script. Instead you have to install AAVD for hand. This is how you can do that.

- o Copy the AAVD executabe to somewhere in your path (for example c: or sys:tools or sys:utilities)
- o Make sure you know where this doc is, so that you can read it if you should run into some trouble later.
- o Done...

1.4 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's 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 probem 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...

1.5 How to use AAVD

How to use AAVD

AAVD can be used 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.

| | | |
|-----|------------------|--|
| W S | PUBSCREEN | Name of the pubscreen to open AAVD on, default is the default public screen (usually Workbench).When this template is used, then AAVD will never leave this screen. Otherwise AAVD will change screen when you do. |
| 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 | NOFANCY | The "windows" are not drawn with a (fancy) 3d look. |
| 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 | SECS | Number of seconds between timedependent events. |
| W S | MICS | Number of microseconds between timedependent events. |
| 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. |
| W S | SAFE | This means that you cannot move a window who got no dragbar, resize a window without a sizedgadget, or deapth arrange a window without a depth gadget. |
| W S | LOCKPOS | This locks the position of the AAVD window. With other words, you can't move it. |
| W S | LOCKSIZE | This prevents you from resizeing the AAVD window. |
| W S | FOLLOW | This tells the AAVD window to follow the visible screen when you scroll it. |
| W S | CX_PRIORITY | Sets the priority of the commoditie. 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 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) 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     : Snapshot screen position 1 to 4.

F1 to F4    : Recall screen position 1 to 4.
```

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) with the width 150 and the height 75.
- o To open AAVD on the first Directory Open screen...


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

DOPUS.1 is the name of the first DirOpus screen.
NOTE: The AAVD-window will now never leave this 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

Most of the above switches 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.

1.6 Using the Keyboard

Keyboard

There are some window-manipulating operations that may be done from the keyboard. These are either to zoom, or to close a

window.

Make sure that the AAVD window is active, then place the pointer over the window you wish too 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.

1.7 Configuration Window

Configuration Window

By pressing the "Display Interface"-hotkey (default is Ctrl-F1), or the 'Show Interface' from the Exchange tool, you can bring up the configuration window. It looks like this.

```

+-----+
|·| AAVD Configuration |*|
+-----+
| _____ |
|Snap: @|_____| Recall: |_____| |
| _____ |
|Snapkey: |_____| |
| _____ |
|X: |_____| Y: |_____| W: |_____| H: |_____| |
| _____ |
|Disabled: @|_____| |
| _ |
|_| No Backdrop | _ | Safe
| _ |
|_| No AAVD Window | _ | No Fancy Boxes
| _ |
|_| No Screen Box | _ | No Screen Draw
| _ |
|_| Box in Front | _ | No Title Bar
| _ |
|_| Lock AAVD Pos | _ | Devide Screen
| _ |
|_| Lock AAVD Size | _ |
| _ |
|_| Follow | _ |
| _____ |
| | Save | | Use | | Cancel | |
| _____ |
+-----+

```

- o Snap This cycle gadget is used to show which of the snapshot and recall hotkeys that are to be displayed in the recall and snapkey string gadgets. Currently you may have up to 4 snapshots.
- o Recall Used to select what hotkey that are to be used as recall hotkey #x, where x is the number displayed in the snap cycle gadget.
- o Snapkey Used to select what hotkey that are to be used as snapshot hotkey #x, where x is the number displayed in the snap cycle gadget.
- o X Y W H Used to specify the Xpos, Ypos, Width and Height of the AAVD window when AAVD is started. A value of -1 in the X or Y gadgets means that AAVD will open the window on the first visible Xpos and Ypos. A value of -1 in W and H means that the width and/or height will be 1/8:th of the current screens width and height.
- o Disabled When AAVD is disabled from the Exchange tool, then this cycle gadget will determine how AAVD should be disabled. You can disable either the AAVD window, or the snapshot hotkeys, or both.
- o Checkboxes Used to set/clear the switches. See Usage for more information.
- o Buttons These buttons (Save, Use and Cancel) has the same function as the Save, Use and Cancel buttons in any prefs program. Save will save the settings on disk, so that they will survive a reboot, Use saves them in ram (usually) and Cancel returns AAVD to the state it was before the configuration window was opened.

1.8 Technical info about AAVD

Technical info.

AAVD patches some of the rom routines to find out when a window is moved, resized, depth arranged, 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 problably 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 saftly 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 probably 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 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. This will not happen if you used the PUBSCREEN template.
- 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, 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 frezes 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). I this should happen, PLEASE, send me a letter where you describe how you managed to fo 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 window,
but NOT for CON: windows, for some reason. This means that you
cannot close, for example, a shell window from AAVD.

1.9 Nobody is perfect

Known bugs

When the AAVD window is locked onto a specific screen (by using

```
PUBSCREEN  
=screenname) and you bring up the configwindow and then  
select a gadget that forces AAVD to reopen the window, the window  
will be opened on default pubscreen (Workbench).
```

The window doesn't keep it's size when moves to another screen.

This doc is kind of messy :-)

1.10 What will (may) happend in the future

Future

And I havn't decided what to do if the user doubleclick the
right button, any ideas (perhaps center the screen over a
point)??

Maybe I will allow the used to specify what screens AAVD
may/may not use.

Add more keyboard commands, for example it would be nice
if you could jump between the "virtual screens" with the
cursor keys, and maybe change screens with shift-cursor
up/down.

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

1.11 How it all used to be

History

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 patched 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 draw 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.

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 Saarme 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.
