Mouse Pointer Centering

The problem is, it can be difficult to move the pointer across a large monitor. It can be even worse trying to move across two large monitors. The twoCenter utility makes this task easier. It uses two adaptive switches to center the mouse pointer on the left or right monitor. There is a programmable delay such that a HeadMouse user could hit a switch with his/her head and then reposition his/her head before the mouse pointer is centered.

The AutoHotkey (www.autohotkey.com) script below is used to center the mouse pointer on one or two monitors using one or two adaptive switches.

If you have more than two monitors ALL commands will center on the primary monitor.

AutoHotkey runs on the Windows operating system

Along with the ability to use two adaptive switches there are three keyboard hot-key commands:

- `<ALT>-s` which centers the mouse pointer in the left monitor
- `<ALT>-d` which centers the mouse pointer in the right monitor
- `<ALT>-c` which centers the mouse pointer in the primary monitor (will be redundant with left or right above.)

(This means hold the ALT key down while pressing the s, d or c key.)

The "s" and "d" keys were chosen because they are close to the ALT key, each other and their left and right arrangement matches their function. Finally, the Italian words for Left and Right are (S)inistra and (D)estra respectively.

The external switch inputs must generate joystick (gamepad) button 1 output when a switch is actuated and joystick button 2 when the other switch is actuated. This means a switch interface that can emulate joystick buttons is required.

There is a programmable delay built in for the left and right center functions using external switches. This delay is for HeadMouse (or other head pointer) users. A user actuates a centering switch with his/her head and has the delay time to reposition his/her head before the mouse pointer is recentered.

Feel free to change the delay variable at the beginning of the script. Remember the delay value is in milliseconds. For one second use "delay := 1000".

Use an Origin Instruments switch interface (Swifty or Tapio) set to emulate a joystick with a stereo splitter and two Orby switches, or use our Breeze sip and puff switch. This will allow the user to center on either monitor with one switch actuation. Of course if you have one monitor you only need one external switch.

If you are interested in how the script works please refer to https://www.autohotkey.com.

The AutoHotKey (AHK) script is available in a compiled version (twoCenter.exe) with everything included in one file or in source form (twoCenter.ahk). With the source form you will have to download AutoHotKey and install the program first.

In both cases you can put either the compiled version or the script version in your Windows Startup folder and everytime you start up your computer the script will execute. You can tell if the compiled program is running by looking in the system tray for the twoCenter icon - a rectangular white icon with "Oi," for Origin Instruments. If you have the Origin Instruments Launcher running for SofType or Dragger you will also see a similar icon for it in your system tray.

twoCenter.zip

Unzip the file and copy twoCenter.exe into a directory on you hard drive. Then you can double click that file to launch the twoCenter utility. Plug in your Swifty (or Tapio set to joystick mode) and one or two adaptive switches and you should be be able to center your mouse pointer on your left or right monitor. If you want the program to automatically start everytime you start your computer go to your startup folder and add a shortcut to twoCenter.exe.

twoCenter.ahk

For the uncompiled version of the AHK script you first must install AutoHotKey. Save twoCenter.ahk to a directory on your hard drive. Then double click on the twoCenter.ahk file to start the script. Plug in your Swifty (or Tapio set to joystick mode) and one or two adaptive switches and you should be be able to center your mouse pointer on your left or right monitor. If you want the program to automatically start everytime you start your computer go to your startup folder and add a shortcut to twoCenter.ahk.

Content of the twoCenter.ahk File

Generate an AHK executable and put a shortcut in the startup directory to launch the program at bootup or startup.

"C:\Users\The User Name\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Startup"

Use the following to generate the executable:
Ahk2Exe.exe /in MyScript.ahk [/out MyScript.exe] [/icon MyIcon.ico] [/bin AutoHotkeySC.bin] [/mpress 0or1]

Example: ahk2exe.exe /in "myscript.ahk" /icon "custom.ico" This generates myscript.exe with a custom icon. If you want a different output name use the /out "differentName.exe" option.

Then store the executable somewhere and generate a shortcut and move it to the startup directory above.

/*
This AutoHotkey (www.autohotkey.com) script has two functions - center the mouse pointer on the LEFT and RIGHT monitor of a two monitor set. If you only have one monitor it will center on it
with any left, right or center command.

If you have more than two monitors ALL commands will center on the primary monitor.

** AutoHotkey runs on the Windows operating system **

There are three keyboard hot-key commands and the ability to use external switches:

<ALT>-s which centers the mouse pointer in the left monitor
<ALT>-d which centers the mouse pointer on the right monitor
<ALT>-c which centers the mouse pointer on the primary monitor, will be redundant with left or right above.

(This means hold the ALT key down while pressing the s, d or c key.)

The "s" and "d" keys were chosen because they are close to the ALT key, each other and their left and right arrangement matches their function. Finally, the Italian words for Left and Right are (S)inistra and (D)estra respectively.

You can also center the pointer using a switch interface and two external switches. The interface should generate joystick (gamepad) button 1 output when a switch is actuated and joystick button 2 when
the other switch is actuated.

There is a programmable delay built in for the left and right center functions using external switches. This delay is for HeadMouse (or other head pointer) users. A user actuates a centering switch with
his/her head and has the delay time to reposition his/her head before the mouse pointer is recentered.

Feel free to change the delay variable at the beginning of the script. Remember the delay value is in milliseconds. For one second use "delay := 1000".

Use an Origin Instruments Swifty set to emulate a joystick with a stereo splitter and two Orby switches. This will allow the user to center on either monitor with one actuation. Of course if you have one monitor you only need one external switch.

If you are interested in how the script works please refer to www.autohotkey.com.

*/

```
; Delay variable

delay := 2000 ; delay in milliseconds (1000 milliseconds = 1 second)


!c:: ; Center on PRIMARY monitor
coordMode, Mouse, Screen
x := (A_ScreenWidth // 2)
y := (A_ScreenHeight // 2)
SysGet, mons, MonitorCount
mousemove, x, y
return


Joy1:: ; Center cursor on LEFT (Sinistra) monitor of a two monitor arrangement
Sleep, delay
!s::
coordMode, Mouse, Screen
SysGet, mons, MonitorCount
if (mons = 1 or mons > 2)
{
  x := (A_ScreenWidth //2)
  y := (A_ScreenHeight //2)
  mouseMove, x, y
  return
}
SysGet, Mon1, Monitor, 1
Mon1Delx := Abs(Mon1Left - Mon1Right) // 2
Mon1Dely := Abs(Mon1Top - Mon1Bottom) // 2
Mon1Cx := (Mon1Left + Mon1Delx)
Mon1Cy := (Mon1Top + Mon1Dely)

SysGet, Mon2, Monitor, 2
Mon2Delx := Abs(Mon2Left - Mon2Right) // 2
Mon2Dely := Abs(Mon2Top - Mon2Bottom) // 2
Mon2Cx := (Mon2Left + Mon2Delx)
Mon2Cy := (Mon2Top + Mon2Dely)

if (Mon1Left < Mon2Left)
  mouseMove, Mon1Cx, Mon1Cy
else
  mouseMove, Mon2Cx, Mon2Cy
return
```

```
Joy2:: ; Center cursor on RIGHT (Destra) monitor of a two monitor arrangement
Sleep, delay
!d::
coordMode, Mouse, Screen
SysGet, mons, MonitorCount
if (mons = 1 or mons > 2)
{
  x := (A_ScreenWidth //2)
  y := (A_ScreenHeight //2)
  mouseMove, x, y
  return
}
SysGet, Mon1, Monitor, 1
Mon1Delx := Abs(Mon1Left - Mon1Right) // 2
Mon1Dely := Abs(Mon1Top - Mon1Bottom) // 2
Mon1Cx := (Mon1Left + Mon1Delx)
Mon1Cy := (Mon1Top + Mon1Dely)

SysGet, Mon2, Monitor, 2
Mon2Delx := Abs(Mon2Left - Mon2Right) // 2
Mon2Dely := Abs(Mon2Top - Mon2Bottom) // 2
Mon2Cx := (Mon2Left + Mon2Delx)
Mon2Cy := (Mon2Top + Mon2Dely)

if (Mon1Left < Mon2Left)
  mouseMove, Mon2Cx, Mon2Cy
else
  mouseMove, Mon1Cx, Mon1Cy
return
```