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Subject: Filename order: interactive arranging  
Posted by [amacphee](#) on Fri, 29 Sep 2000 07:00:00 GMT  
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Hi,  
A little problem with list sorting:  
I'm trying to produce an animation from data reduced from several files.  
I can now home in on the data (thanks to David Fanning), isolate the  
subsets of interest from each file and produce an MPEG movie. Great!  
However, because I simply choose the files in a `dialog_pickfile`, the  
order of the files in the animation is determined by the OS's standard  
file sort mechanism (I think). I've considered using a listbox to get  
the indices of the selected filenames in order of the users clicking  
and use these values to re-arrange the filenames in the array returned  
by `dialog_pickfile`. I have not delved into widget programming yet  
though...

I expect that this may not be too uncommon a thing for people to want to  
do, so maybe again there is a solution waiting out there somewhere?

Thanks for any advice,  
Andrew

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Subject: Re: Filename order: interactive arranging  
Posted by [davidf](#) on Sun, 01 Oct 2000 07:00:00 GMT  
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Andrew ([amacphee@my-deja.com](mailto:amacphee@my-deja.com)) writes:

> Thanks for the advice Pavel. I think that will work fine for the  
> majority of our situations (ie when the filenames are sensible to start  
> with). I still need some manual intervention for other cases. I will  
> try a combination of the two :-)

I have a `LinkedList` object on my web page that  
can be extremely useful for this task. It already  
has methods for Adding, Deleting, and Moving  
items on the list. I've used it as an image  
processing command recorder. But before the  
final batch processing of images, the user  
has a chance to "edit" the command list, perhaps  
by deleting or moving commands around. This  
sounds pretty much like what you want to do.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting

Phone: 970-221-0438 E-Mail: davidf@dfanning.com

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Toll-Free IDL Book Orders: 1-888-461-0155

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Subject: Re: Filename order: interactive arranging  
Posted by [amacphee](#) on Sun, 01 Oct 2000 07:00:00 GMT  
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Thanks again,  
Andrew

In article <8r6fhq\$e3n\$1@peabody.colorado.edu>,  
"Pavel Romashkin" <promashkin@cmdl.noaa.gov> wrote:  
> Once you have all needed files selected, why not create a string  
array of  
> names and sort it? With some creativity, you can sort by all kinds of  
> criteria - extensions, numbers in names etc.  
> Cheers,  
> Pavel  
>  
>

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Subject: Re: Filename order: interactive arranging  
Posted by [amacphee](#) on Mon, 02 Oct 2000 03:38:19 GMT  
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Thank you again David for another solution. I'll be sure to check your library next time I have a requirement that isn't addressed by the stock IDL routines.

(The linkedlist program is obviously capable of far more than than I need for this problem, but If I interpret it correctly it will do the job fine. I'll hopefully learn a bit more about IDL programming too as a result :-)

Great!

Andrew

UPD/401  
APS, Argonne, IL

In article <MPG.1440e5577743e727989c48@news.frii.com>, davidf@dfanning.com (David Fanning) wrote:

> Andrew (amacphee@my-deja.com) writes:

>

>> Thanks for the advice Pavel. I think that will work fine for the majority of our situations (ie when the filenames are sensible to start

>> with). I still need some manual intervention for other cases. I will try a combination of the two :-)

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Subject: Re: Filename order: interactive arranging  
Posted by [marc schellens\[1\]](#) on Mon, 02 Oct 2000 07:00:00 GMT  
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amacphee@my-deja.com wrote:

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I have a very simple interactive list sorter. I think it might be just what you are looking for.

You have to provide an array of strings and the click on two list elements to swap them.

It returns the sorted indices. Index your array with it and that's it.

It is derived from another very ancient program I wrote, therefore the programming style is not so up to date.

Cheers,  
:-) marc

Example use:

```
IDL> a=['123','abc','456','def']  
IDL> ix=L_Sorter(a)
```

clicking around....

```
IDL> print,ix  
      2      3      1      0
```

```
IDL> print,a[ix]
456 def abc 123
```

```
:: function L_Sorter
:: Let the user sort a list (a string array)
::
:: variables:
:: theList Stringarray to sort
::
:: keywords:
:: group the Groupleaders ID, should be provided, since this
:: is a modal dialog (if not provided, it works nevertheless,
faking a main base)
:: title The windows title
::
:: return:
:: the sorted index
```

```
:: eventhandler for L_SelectfromList
pro L_Sorter_EVENT,event
```

```
common L_SorterCommon,sortIx,listID,list,last
```

```
WIDGET_CONTROL,Event.Id,GET_UVALUE=Ev
```

```
CASE Ev OF
'OK': BEGIN
    widget_control,Event.top,/destroy
END
'REVERSE': BEGIN
    sortIx=reverse(sortIx)
    widget_control,listID,SET_VALUE=list[sortIx]
    last=-1
END
'CANCEL': BEGIN
    widget_control,Event.top,/destroy
    sortIx=-1
END
'LIST': BEGIN
    if last ne -1 then begin
        tmp=sortIx[last]
        sortIx[last]=sortIx[event.index]
        sortIx[event.index]=tmp
        widget_control,listID,SET_VALUE=list[sortIx]
        last=-1
    endif else begin
        last=event.index
```

```

        endelse
    END
ENDCASE
end

;; L_SelectFromList main function
function L_Sorter,theList,TITLE=Title,$
    GROUP=group,INIT=init

common L_SorterCommon

;; set default title if TITLE keyword is not set
if( n_elements(TITLE) ne 0) then $
    actTitle=Title $
else $
    actTitle='Define the sort order'

actNum=n_elements(theList)
list=theList

;; limit the number of visible lines
actYsize = actNum < 30

;; main base
if n_elements(group) ne 0 then begin
    MAIN_Sorter = WIDGET_BASE( GROUP_LEADER=group, /col, TITLE=actTitle,
/modal)
endif else begin
    RealMAIN_Sorter=widget_base()
    MAIN_Sorter = WIDGET_BASE( GROUP_LEADER=RealMAIN_Sorter, /col,$
        TITLE=actTitle, /modal)
endelse

if n_elements(init) eq 0 then sortIx=indgen(actNum) else sortIx=init
last=-1

;; the list widget
listID=WIDGET_LIST(MAIN_Sorter, VALUE=list[sortIx],YSIZE=actYsize,$
    UVALUE='LIST')

;; the cancel button
bb=widget_base(MAIN_Sorter,/row,XPAD=0,YPAD=0)
b = WIDGET_BUTTON( bb, VALUE=' Ok ', UVALUE='OK')
b = WIDGET_BUTTON( bb, VALUE='Reverse', UVALUE='REVERSE')
b = WIDGET_BUTTON( bb, VALUE='Cancel', UVALUE='CANCEL')

;; realize and handle by xmanager
WIDGET_CONTROL, MAIN_Sorter, /REALIZE

```

XMANAGER, 'L\_Sorter', MAIN\_Sorter

return,sortlx  
END

---

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Subject: Re: Filename order: interactive arranging  
Posted by [amacphee](#) on Tue, 03 Oct 2000 00:33:11 GMT  
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Thank you Marc, this also looks like a good solution to my problem.  
With such good advice I've been receiving on IDL topics I feel obliged  
to learn something useful so I can help someone else out!

Many thanks for all your help everyone!

Andrew

In article <39D8715B.F3C4FB29@hotmail.com>,  
Marc Schellens <m\_schellens@hotmail.com> wrote:  
> amacphee@my-deja.com wrote:  
>  
>> Hi,  
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files.  
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> ;; function L_Sorter
> ;; Let the user sort a list (a string array)
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> ;; variables:
> ;; theList Stringarray to sort
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> ;; group the Groupleaders ID, should be provided, since this
> ;; is a modal dialog (if not provided, it works
nevertheless,
> faking a main base)
> ;; title The windows title
> ;;
> ;; return:
> ;; the sorted index
>
> ;; eventhandler for L_SelectfromList
> pro L_Sorter_EVENT,event
>

```



```

> common L_SorterCommon,sortIx,listID,list,last
>
> WIDGET_CONTROL,Event.Id,GET_UVALUE=Ev
>
> CASE Ev OF
>   'OK': BEGIN
>     widget_control,Event.top,/destroy
>   END
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>     sortIx=reverse(sortIx)
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>     if last ne -1 then begin
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>       widget_control,listID,SET_VALUE=list[sortIx]
>       last=-1
>     endif else begin
>       last=event.index
>     endelse
>   END
> ENDCASE
> end
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> ;; L_SelectFromList main function
> function L_Sorter,theList,TITLE=Title,$
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> endelse
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> if n_elements(init) eq 0 then sortlx=indgen(actNum) else sortlx=init
> last=-1
>
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>                     UVALUE='LIST')
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> END
>
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