Subject: Dealing with list created by STRSPLIT?
Posted by BLesht on Fri, 20 May 2011 02:44:42 GMT

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I have an array of full-path filenames from which I need to extract some substrings. The array consists of a large number of strings of the form

diskname/maindir/subdir1/subdir2/subdir3/filename
diskname/maindir/subidr1/subdir2/subdir3/filename etc.

The lengths of the subdirXs can be different. What I wanted to do was create some arrays the elements of which would be the subdirXs. I thought this would be simple now that STRSPLIT allows arrays as input. I had the array of n filenames in a string array and I used

splitnames = STRSPLIT(filenames, '/', /EXTRACT).

The result 'splitnames' is a list with n elements and each element is of the form

diskname maindir subdir1 subdir2 subdir3 filename as it should be. Each element is a string array.

What I can't seem to figure out is how to now extract one of these terms from the list element. That is, I'd like to end up with arrays that have the n subdir2s (for example). I've tried using the LIST::TOARRAY () feature but this fails for some mysterious reason with the message

```
IDL> namearray=splitnames.ToArray()
% LIST::TOARRAY: Unable to convert to type STRING: Element 798
% Error occurred at: LIST::TOARRAY
%                $MAIN$
% Execution halted at: $MAIN$
```

Element 798 is no different from any of the elements in the list, by the way, but this is not the real problem (at least I don't think it is)

There must be an easy way to do this; I'm not seeing it. Any help would be much appreciated.

Subject: Re: Dealing with list created by STRSPLIT?
Posted by penteado on Mon, 23 May 2011 20:53:22 GMT

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> I should have said "you can also use the usual array ranges, *, etc."
> for the second and subsequent indices. The first index MUST be a
> scalar.

It seems easy to make a derived class that would do it. Which is the
beauty of having the containers implemented by objects.

Subject: Re: Dealing with list created by STRSPLIT?
Posted by chris_torrence@NOSPAM on Mon, 23 May 2011 20:54:15 GMT
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> On May 20, 2:46 pm, Barry Lesht <ble...@gmail.com> wrote:
>
>> Thanks, David. I'll see if Chris replies again and in the meantime
>> install 8.1.
>
>> Regards, Barry

Okay, in IDL 8.0.1, the List::ToArray() only worked if your List
contained scalars. In IDL 8.1 it now works for lists that contain
array elements, as long each array has the same number of elements.

So, once you upgrade to IDL 8.1 you should be fine.

Cheers,
Chris

Subject: Re: Dealing with list created by STRSPLIT?
Posted by penteado on Mon, 23 May 2011 21:00:00 GMT
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On May 23, 5:54 pm, Chris Torrence <gorth...@gmail.com> wrote:
>> On May 20, 2:46 pm, Barry Lesht <ble...@gmail.com> wrote:
>
>>> Thanks, David. I'll see if Chris replies again and in the meantime
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> contained scalars. In IDL 8.1 it now works for lists that contain
> array elements, as long each array has the same number of elements.
>
> So, once you upgrade to IDL 8.1 you should be fine.

Yes, I forgot about that, which is a very nice addition.

Subject: Re: Dealing with list created by STRSPLIT?
Posted by David Fanning on Mon, 23 May 2011 21:01:40 GMT
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Chris Torrence writes:

> Okay, in IDL 8.0.1, the List::ToArray() only worked if your List
> contained scalars. In IDL 8.1 it now works for lists that contain
> array elements, as long each array has the same number of elements.
>
> So, once you upgrade to IDL 8.1 you should be fine.

Well, Barry would have been fine had he been able
to convert the list to an array. Do we know why
he wasn't able to do that?

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Dealing with list created by STRSPLIT?
Posted by chris_torrence@NOSPAM on Mon, 23 May 2011 21:39:23 GMT
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On May 23, 3:01 pm, David Fanning <n...@idlcoyote.com> wrote:
> Chris Torrence writes:
>> Okay, in IDL 8.0.1, the List::ToArray() only worked if your List
>> contained scalars. In IDL 8.1 it now works for lists that contain
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>
> Well, Barry would have been fine had he been able
> to convert the list to an array. Do we know why
> he wasn't able to do that?

>
> Cheers,
>
> David

That didn't work in IDL 8.0.1 or earlier. All of the list elements
needed to be scalars for ::ToArray to work. In IDL 8.1 we added code
that handles arrays.

-Chris

Subject: Re: Dealing with list created by STRSPLIT?
Posted by David Fanning on Mon, 23 May 2011 21:45:59 GMT

Chris Torrence writes:

> That didn't work in IDL 8.0.1 or earlier. All of the list elements
> needed to be scalars for ::ToArray to work. In IDL 8.1 we added code
> that handles arrays.

Oh, OK. That explains why I got no errors when I
tried to covert the list to an array. Thanks!

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Dealing with list created by STRSPLIT?
Posted by BLesht on Tue, 24 May 2011 18:39:30 GMT

On May 23, 3:54 pm, Chris Torrence <gorth...@gmail.com> wrote:
>> On May 20, 2:46 pm, Barry Lesht <ble...@gmail.com> wrote:
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> array elements, as long each array has the same number of elements.
>
> So, once you upgrade to IDL 8.1 you should be fine.
>
> Cheers,
> Chris

Thanks very much, all. I did install 8.1 a few days ago, but got
distracted from this problem by another project. Here is what happens
now (success!).

IDL> help, splitname
SPLITNAME   LIST <ID=22 NELEMENTS=804>
IDL> help, splitname[0]
<Expression>   STRING   = Array[7]
IDL> newarray=splitname.ToArray()
IDL> help, newarray
NEWARRAY   STRING   = Array[804, 7]

Which is what I was originally hoping for. I really appreciate your
suggestions and help.

Barry

Subject: Re: Dealing with list created by STRSPLIT?
Posted by zhyf87 on Sat, 04 Aug 2012 08:52:08 GMT
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> I have an array of full-path filenames from which I need to extract
> some substrings. The array consists of a large number of strings of
> the form
>
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> Each element is a string array.
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> Element 798 is no different from any of the elements in the list, by
> the way, but this is not the real problem (at least I don't think it
> is)
>
> There must be an easy way to do this; I'm not seeing it. Any help
> would be much appreciated.

same problem here with 8.0
first indice must be a scalar while exacting elements, and LIST.ToArray doesn't work. for loop
solves this :)

Subject: Re: Dealing with list created by STRSPLIT?
Posted by Adam Erickson on Sun, 13 Mar 2016 21:43:34 GMT
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On Tuesday, May 24, 2011 at 8:39:30 PM UTC+2, Barry Lesht wrote:
> On May 23, 3:54 pm, Chris Torrence <gorth...@gmail.com> wrote:
>>> On May 20, 2:46 pm, Barry Lesht <ble...@gmail.com> wrote:
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> <Expression>   STRING   = Array[7]
> IDL> newarray=splitname.ToArray()
> IDL> help, newarray
> NEWARRAY   STRING   = Array[804, 7]
>
> Which is what I was originally hoping for. I really appreciate your
> suggestions and help.
>
> Barry

Yes, thank you for this! I hope the issue has been addressed. Efficient indexing is a very important feature to have.

Adam