

Greetings!

Michael Wallace <mwallace.removethis@swri.edu.invalid> writes:

>

> What I'm interested in is an example of a save file which consists of a
> structure with multiple one-dimensional arrays. The arrays are the same
> size, but may be of different primitive data types (usually integers,
> sometimes floats, sometimes strings). I guess I'm trying to figure out
> how all the records line up and where everything falls for a complicated
> structure like this. I want to determine how easy it would be to create
> a save file such as this outside of IDL.

If you are looking for an example, then probably you could make an example pretty easily with some sample data, right?

You can also easily use the mid- or low-level routines in my library to create sample save files of any type you desire.

The variable-type descriptors are not full fledged records. What you are really asking is how the descriptors appear within a single variable's record. What you will find is that a structure descriptor starts with a value of "9". Then, if the structure contains any arrays or structures within itself, then descriptors for those follow, first arrays, then structures. For your problem, you would see the following byte stream:

```
STRUCT_DESCR (N tags, including M arrays)
ARRAY_DESCR (1)
...
ARRAY_DESCR (M)
```

After the first definition of a structure, any following structures of the same data type refer back to the original instead of redefining it again.

> By the way, do you (Craig) have plans to update the document for IDL 6.0?

Let's say that the implied legal threats against me by RSI and Kodak have more or less cooled my interest in IDL save files.

Do you have any reason to believe that IDL 6 save file formats have changed?

Craig

--

Craig B. Markwardt, Ph.D. EMAIL: craigmnet@REMOVEcow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response

Subject: Re: IDL Save Files: A Journey into Craig's World
Posted by [Michael Wallace](#) on Mon, 05 Apr 2004 16:02:38 GMT
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> starts with a value of "9". Then, if the structure contains any
> arrays or structures within itself, then descriptors for those follow,
> first arrays, then structures. For your problem, you would see the
> following byte stream:
> STRUCT_DESCR (N tags, including M arrays)
> ARRAY_DESCR (1)
> ...
> ARRAY_DESCR (M)

Ah. Okay. Yes, that's what I'm really asking.

> Do you have any reason to believe that IDL 6 save file formats have
> changed?

No. But I was curious if there were any differences. I'm working on a project where one of my requirements is to support IDL save files (much to my chagrin) as an output. However, I have no control over what version of IDL folks are using. I will always be using the latest version of IDL, but who knows what kind of incompatibilities may arise since the format of save files could change at any time. RSI has been known to change things without warning before...

Subject: Re: IDL Save Files: A Journey into Craig's World
Posted by [Paul Van Delst\[1\]](#) on Mon, 05 Apr 2004 16:11:14 GMT
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Michael Wallace wrote:

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> since the format of save files could change at any time. RSI has been
> known to change things without warning before...

Hello,

I thought (not sure though) that for data only, save files were compatible across IDL versions. For save files containing procedures, then there is an incompatibility.

BTW, what bright spark made support of IDL save files a requirement for you?

paulv

Subject: Re: IDL Save Files: A Journey into Craig's World
Posted by [Craig Markwardt](#) on Mon, 05 Apr 2004 16:39:10 GMT
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Paul Van Delst <paul.vandelst@noaa.gov> writes:

> I thought (not sure though) that for data only, save files were
> compatible across IDL versions. For save files containing
> procedures, then there is an incompatibility.

I think RSI only mentions forward compatibility, that is, old files will be readable in new versions of IDL. This still allows them to completely change the format written by new versions of IDL. And I'm not sure RSI actually "promises" to maintain even that compatibility anywhere.

Craig

--

Craig B. Markwardt, Ph.D. EMAIL: craigmnet@REMOVEcow.physics.wisc.edu
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Subject: Re: IDL Save Files: A Journey into Craig's World
Posted by [Craig Markwardt](#) on Mon, 05 Apr 2004 16:43:33 GMT
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Michael Wallace <mwallace.removethis@swri.edu.invalid> writes:

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> since the format of save files could change at any time. RSI has been
> known to change things without warning before...

If you control the writing of output files, then I might suggest that
you use my (mid- or low-level) library routines to make IDL save
files. Since the library is a totally independent implementation of
save-file functionality, you don't have to worry about it changing
with new versions of IDL. Unfortunately it does not do compressed
files, or files with objects inside, if either of those are important
to you.

Craig

--

Craig B. Markwardt, Ph.D. EMAIL: craigmnet@REMOVEcow.physics.wisc.edu
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Subject: Re: IDL Save Files: A Journey into Craig's World

Posted by [p.sommer](#) on Mon, 19 Apr 2004 02:26:32 GMT

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Craig Markwardt <craigmnet@REMOVEcow.physics.wisc.edu> wrote in message
news:<ony8paml3e.fsf@cow.physics.wisc.edu>...

> Michael Wallace <mwallace.removethis@swri.edu.invalid> writes:
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> to you.

>
> Craig

For what it's worth, 6.1 will support a sav file query -- new routines to handle this. I've seen alpha versions of the functionality and it looks promising going forward.
