
Subject: Re: Create unique temporary file
Posted by [David Fanning](#) on Wed, 25 Aug 2004 05:04:43 GMT
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Michael Wallace writes:

> I need some robust way to create a temporary file. The filepath
> function will get you part of the way toward this goal since it can
> prepend your system's temporary directory to the file name. But you
> still have to come up with a good filename.
>
> filename = FilePath('myfile.txt', /TMP)
>
> The above command will do the job if you only have one copy of the
> program running. If there are two or more copies of the program
> running, or even a single program running in multiple threads, there's a
> possibility of collision when two processes or two threads attempt to
> use the same temporary filename at the same time.
>
> What I'd like is some way to generate a completely unique filename
> except for the extension to reduce the probability of a collision. Any
> bright ideas?

Here is how I create a unique journal file name:

```
Print, String('journal_', Bin_Date(SysTime()), '.pro', $  
Format='(A, I4, 5I2.2, A)')
```

Cheers,

David

P.S. Bin_Date!? What the heck is that!

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: Create unique temporary file
Posted by [Michael Wallace](#) on Wed, 25 Aug 2004 06:47:35 GMT
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> Here is how I create a unique journal file name:
>
> Print, String('journal_', Bin_Date(SysTime()), '.pro', \$
> Format='(A, I4, 5I2.2, A)')

Thanks for the idea. I had thought of using a current system time stamp, but it totally slipped my mind that I could concatenate the number together so easily. It's little details like that which I'm still learning. When I finally wrote my code, not only did I take the date as you did, but I further appended a random number and I did a check of file existence to ensure that nothing would ever get clobbered.

The only way this could fail would be if there were some insane once-in-a-lifetime freakish occurrence. Now that I've said this, this will happen tomorrow. ;-)

> P.S. Bin_Date!? What the heck is that!

The kind of code you get when you give coyotes caffeine late at night?

-Mike

Subject: Re: Create unique temporary file
Posted by [Paul Van Delst\[1\]](#) on Wed, 25 Aug 2004 13:54:03 GMT
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Michael Wallace wrote:

>> Here is how I create a unique journal file name:

>>

>> Print, String('journal_', Bin_Date(SysTime()), '.pro', \$

>> Format='(A, I4, 5I2.2, A)')

>

>

> Thanks for the idea. I had thought of using a current system time
> stamp, but it totally slipped my mind that I could concatenate the
> number together so easily. It's little details like that which I'm
> still learning. When I finally wrote my code, not only did I take the
> date as you did, but I further appended a random number and I did a
> check of file existence to ensure that nothing would ever get clobbered.
> The only way this could fail would be if there were some insane
> once-in-a-lifetime freakish occurrence. Now that I've said this, this
> will happen tomorrow. ;-)

I do a similar thing in some shell scripts I have, but I append a sequential number rather than a random number. E.g. I start with my time (and username!) stamped file and append a "_1". I check if that file exists. If it does I change the suffix to "_2". Rinse and repeat as necessary. If the file counter gets larger than 100, I stop with an error.

I've had the number suffix get as high as 15 - i.e. the line of code in my script that compiles the time stamped filename was executed simultaneously 14 times. Ahh, the joys of having 100's of processors to play with. :o)

paulv

Subject: Re: Create unique temporary file
Posted by [Craig Markwardt](#) on Thu, 26 Aug 2004 00:10:10 GMT
[View Forum Message](#) <> [Reply to Message](#)

Michael Wallace <mwallace.no.spam@no.spam.swri.edu.invalid> writes:

```
>> Here is how I create a unique journal file name:
>>
>>   Print, String('journal_', Bin_Date(SysTime()), '.pro', $
>>       Format='(A, I4, 5I2.2, A)')
>
> Thanks for the idea. I had thought of using a current system time
> stamp, but it totally slipped my mind that I could concatenate the
> number together so easily. It's little details like that which I'm
> still learning. When I finally wrote my code, not only did I take the
> date as you did, but I further appended a random number and I did a
> check of file existence to ensure that nothing would ever get clobbered.
> The only way this could fail would be if there were some insane
> once-in-a-lifetime freakish occurrence. Now that I've said this, this
> will happen tomorrow. ;-)
```

Hey Michael, I'm coming into this late, but I've developed a function called CMUNIQUE_ID() which generates unique identifiers. I use it all the time to avoid name clashes. I base the unique ID on the time, some randomness, and any other bits you can throw at it. Each time you ask for another ID, you get a different one. [It works even if you ask for two IDs within the same second, which might not work if one uses SYSTIME() alone.]

Good luck,
Craig

<http://cow.physics.wisc.edu/~craigm/idl/idl.html> (under Misc.)

--

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Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
