Subject: Capturing output from SPAWN
Posted by Dan Peduzzi on Fri, 17 Apr 1998 07:00:00 GMT
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I would like to capture the output from a data-intensive
program invoked via SPAWN, but (here's the catch) I would
also like to have the program echo its output to the screen.

I've tried using something like this:

spawn,my_binary + ' | tee '+tempfile
spawn,'cat '+tempfile,output

But the problem here, I think, is that the pipe buffers
the output to the screen, and I don't see the output
at the same time it's produced by the binary.

Does anybody know of a way to capture the output AND
see it printed, unbuffered, to the screen?

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Daniel C. Peduzzi

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==========

Subject: Re: Capturing output
Posted by R.Bauer on Mon, 24 Jun 2002 15:54:03 GMT
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Ian Dean wrote:
>
> Hi,
> A long shot, as I'm using IDL 5.4 under OpenVMS 7.1.
>
> Is there a way of running a sub-process (perhaps using SPAWN) and capture
> its output as it happens to a text widget. I am aware I could use the RESULT
> keyword, but that is only available when the SPAWNed process completes.
>
> It may be possible to use a CALL_EXTERNAL using mailboxes to communicate,
> but this seems a bit heavy handed.
>
> I can always supply more info if required.
>
> Regards,

> Ian

Is it possible to write the data to a temporary file and read this by
the text widget?

Reimar

--
Reimar Bauer

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a IDL library at ForschungsZentrum Juelich
http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_lib_intro.h tml
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Subject: Re: Capturing output
Posted by Craig Markwardt on Mon, 24 Jun 2002 19:48:57 GMT
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"Ian Dean" <Ian.d.dean@baesystems.com> writes:
> Hi,
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>
> Is there a way of running a sub-process (perhaps using SPAWN) and capture
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>
> It may be possible to use a CALL_EXTERNAL using mailboxes to communicate,
> but this seems a bit heavy handed.
>
> I can always supply more info if required.

The only way to do this directly appears to be with the UNIT keyword,
which is not available from VMS.

However, as Reimar says, perhaps you can write the data to a file. If
you SPAWN it using NOWAIT, then your IDL process regains control
immediately while the job runs in parallel. Then your IDL process can
periodically check the temporary file for more output and load it into
the widget as needed.

Craig

Subject: Re: Capturing output
Posted by Dave Greenwood on Mon, 24 Jun 2002 20:27:22 GMT
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In a previous article, "Ian Dean" <Ian.d.dean@baesystems.com> wrote:
> Hi,
> A long shot, as I'm using IDL 5.4 under OpenVMS 7.1.
>
> Is there a way of running a sub-process (perhaps using SPAWN) and capture
> its output as it happens to a text widget. I am aware I could use the RESULT
> keyword, but that is only available when the SPAWNed process completes.
>
> It may be possible to use a CALL_EXTERNAL using mailboxes to communicate,
> but this seems a bit heavy handed.

I think you're on the right track with mailboxes, but I don't think you need to go so far as to use CALL_EXTERNAL. You should be able to SPAWN (/NOWAIT) a subprocess to run a command procedure. The procedure creates the mailbox, defines a job-wide logical containing the mailbox device name and then runs the program with output directed to the mailbox. You can OPENR the mailbox in IDL, read the output and write it to your text widget.

The following is a slight modification of a procedure to create a mailbox in DCL which was posted to comp.os.vms some years ago by Claude Barbe. The modification simply defines the job-wide logical "output_mailbox".

```
$  SPAWN/NOLOG/NOSYMBOLS/NOLOGICAL_NAMES/PROCESS=DCLMBX_'F$getj pi(
"","PID") -
  ATTACH/IDENTIFICATION='F$getjpi("","PID")
$ X = F$context("PROCESS",CTX,"PRCNAM","DCLMBX_"F$getjpi("", "PID")"","EQL")
$ define/job output_mailbox _MBA'F$getjpi(F$pid(CTX),"TMBU")':
$ OPEN/READ/WRITE DCLMBX output_mailbox
$ STOP DCLMBX_'F$getjpi("","PID")
```

In IDL you can open the mailbox like this (the colon is required, according to my test):

```
IDL> openr,lun,'output_mailbox:',/get_lun
```

BTW, does anyone know how to solve the original problem on Mac and/or Windows?

Hth,
Dave

ps - I have a macro program, also from Claude, which creates a mailbox which can be used from DCL. It's from pre-alpha days so I don't know if it'll compile on alpha without mods or not. But it would have the benefit of using an image activation instead of a process creation. Email me if you're interested.

Dave Greenwood Email: Greenwoodde@ORNL.GOV
Oak Ridge National Lab %STD-W-DISCLAIMER, I only speak for myself

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