Arvados - Feature #8464

[Crunch2] Support stdout redirection

02/17/2016 08:37 PM - Peter Amstutz

Status:	Resolved		**Start date:**	05/09/2016
Priority:	Normal		**Due date:**	
Assigned To:	Radhika Chippada		**% Done:**	100%
Category:			**Estimated time:**	0.00 hour
Target version:	2016-05-11 sprint			

Description

https://dev.arvados.org/projects/arvados/wiki/Containers_API

```
"mounts": {
 "stdout":{
  "kind":"regular_file",
  "path":"/tmp/a.out"
 }
}
```

Add a new field to ContainerRunner called StdoutFile of type io.WriteCloser.

1. In SetupMounts, on first time through runner.ContainerRecord.Mounts, if bind is "stdout" then make sure it is of kind "file". Extend SetupMounts to support "file" kind.
2. Before starting arv-mount, check that the "path" field under"stdout" starts with OutputPath. If not, it is an error
3. strip off the leading "OutputPath" to get a relative path
4. if there is a directory in the relative path, create the necessary subdirectories under "HostOutputDir"
5. os.Open() the path for writing under HostOutputDir
6. Assign the writer to ContainerRunner StdoutFile
7. In AttachStreams, if StdoutFile is not nil, assign StdoutFile to runner.Stdout instead of NewThrottledLogger (will need to change type of ContainerRunner.Stdout to be an io.WriteCloser)

That should be it.

Subtasks:

Task # 9095: Review branch 8464-crunch2-stdout	**Resolved**

Associated revisions

Revision 44f0e83d - 05/10/2016 05:23 PM - Radhika Chippada

closes #8464
Merge branch '8464-crunch2-stdout'

History

#1 - 04/27/2016 08:00 PM - Tom Clegg

- Target version set to 2016-05-11 sprint

#2 - 04/27/2016 08:01 PM - Tom Clegg

- Assigned To set to Peter Amstutz

#3 - 04/27/2016 08:01 PM - Tom Clegg

- Story points set to 0.5

#4 - 04/27/2016 08:20 PM - Radhika Chippada

- Assigned To changed from Peter Amstutz to Radhika Chippada

#5 - 05/03/2016 08:15 PM - Peter Amstutz

- Description updated

#6 - 05/04/2016 08:48 PM - Radhika Chippada

#7 - 05/05/2016 09:55 PM - Radhika Chippada

- Description updated

#8 - 05/09/2016 05:29 PM - Peter Amstutz

I don't know what this block starting at L316 is doing, and it won't work because (a) the OutputPath inside the container is different from the HostOutputDir and (b) the HostOutputDir may not exist yet if it hasn't processed all the mounts yet. I think you can just remove the code entirely.

```
} else if mnt.Kind == "file" {
...
}
```

In AttachStreams(), runner.ContainerRecord.Mounts is a map, so you don't need to iterate over it. You can just say

```
if mnt, ok := runner.ContainerRecord.Mounts["stdout"]; ok {
...
}
```

L429: Should be path.Join(runner.HostOutputDir, stdoutSubdirs)

L434: It's not necessary to call os.Stat() after os.MkdirAll() if you're going to ignore the return value.

L437: also should be path.Join(runner.HostOutputDir, stdoutPath)

#9 - 05/09/2016 07:25 PM - Radhika Chippada

73550248

> I don't know what this block starting at L316 is doing

Removed this and updated the tests

> In AttachStreams(), runner.ContainerRecord.Mounts is a map, so you don't need to iterate over it. You can just say

Right, updated it

> L429: Should be path.Join(runner.HostOutputDir, stdoutSubdirs)
> L437: also should be path.Join(runner.HostOutputDir, stdoutPath)

Updated

> L434: It's not necessary to call os.Stat() after os.MkdirAll() if you're going to ignore the return value.

Yes, I had this during my test / debug cycle and failed to see it afterwards. Removed it.

Thanks.

#10 - 05/10/2016 05:25 PM - Radhika Chippada

- Status changed from In Progress to Resolved

- % Done changed from 0 to 100

Applied in changeset arvados|commit:44f0e83d50f688bf73c336747402d490346f5c34.