

## RhodeCode CE/EE - Bug #5494

### rccontrol's python package management causes slow VCS SSH

21.08.2018 16:27 - Peter Colledge

<b>Status:</b>	New	<b>Start date:</b>	21.08.2018																														
<b>Priority:</b>	Normal	<b>Due date:</b>																															
<b>Assignee:</b>		<b>% Done:</b>	0%																														
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour																														
<b>Target version:</b>		<b>Spent time:</b>	0.00 hour																														
<b>Sorting:</b>		<b>Affected Version:</b>	v4.12																														
<b>Commit Number:</b>																																	
<b>Description</b>																																	
Separating python modules into /opt/rhodecode/store/<hash>-python2.7-<name>/ causes python to search for dependencies that are not in their relevant directory, causing hundreds of thousands of missing file errors.																																	
To debug: Edit one troubleshooting user in ~rcuser/.ssh/authorized_keys_rhodecode to include command="strace -f -o /tmp/rc-ssh-wrapper.log ~/.rccontrol/..."																																	
<pre>\$ less /tmp/rc-ssh-wrapper.log ... 34782      0.000131  stat("/opt/rhodecode/store/y2xhi7pkj4cycnaxm2wkw0hhcmfsn846-python2.7-celery-4 .1.0/lib/python2.7/site-packages", {st_mode=S_IFDIR 0755, st_size=4096, ...}) = 0 34782      0.000140  stat("/opt/rhodecode/store/y2xhi7pkj4cycnaxm2wkw0hhcmfsn846-python2.7-celery-4 .1.0/lib/python2.7/site-packages", {st_mode=S_IFDIR 0755, st_size=4096, ...}) = 0 34782      0.000134  stat("/opt/rhodecode/store/y2xhi7pkj4cycnaxm2wkw0hhcmfsn846-python2.7-celery-4 .1.0/lib/python2.7/site-packages/os", 0x7ffd146ac630) = -1 ENOENT (No such file or directory) 34782      0.000133  open("/opt/rhodecode/store/y2xhi7pkj4cycnaxm2wkw0hhcmfsn846-python2.7-celery-4 .1.0/lib/python2.7/site-packages/os.so", O_RDONLY) = -1 ENOENT (No such file or directory) 34782      0.000179  open("/opt/rhodecode/store/y2xhi7pkj4cycnaxm2wkw0hhcmfsn846-python2.7-celery-4 .1.0/lib/python2.7/site-packages/osmodule.so", O_RDONLY) = -1 ENOENT (No such file or directory) 34782      0.000129  open("/opt/rhodecode/store/y2xhi7pkj4cycnaxm2wkw0hhcmfsn846-python2.7-celery-4 .1.0/lib/python2.7/site-packages/os.py", O_RDONLY) = -1 ENOENT (No such file or directory) 34782      0.000142  open("/opt/rhodecode/store/y2xhi7pkj4cycnaxm2wkw0hhcmfsn846-python2.7-celery-4 .1.0/lib/python2.7/site-packages/os.pyc", O_RDONLY) = -1 ENOENT (No such file or directory) ...  \$ grep ENOENT /tmp/rc-ssh-wrapper.log   wc -l 256522 \$ grep ENOENT /tmp/rc-ssh-wrapper.log   grep -v python   wc -l 965</pre>																																	
Adapt the strace to -c:																																	
<table border="1"><thead><tr><th>% time</th><th>seconds</th><th>usecs/call</th><th>calls</th><th>errors</th><th>syscall</th></tr></thead><tbody><tr><td>44.60</td><td>6.077716</td><td>675302</td><td>9</td><td>3</td><td>wait4</td></tr><tr><td>33.16</td><td>4.519439</td><td>22</td><td>208836</td><td>202905</td><td>open</td></tr><tr><td>15.13</td><td>2.061998</td><td>17</td><td>122457</td><td>53627</td><td>stat</td></tr><tr><td>3.76</td><td>0.511863</td><td>18</td><td>28472</td><td>62</td><td>lstat</td></tr></tbody></table>				% time	seconds	usecs/call	calls	errors	syscall	44.60	6.077716	675302	9	3	wait4	33.16	4.519439	22	208836	202905	open	15.13	2.061998	17	122457	53627	stat	3.76	0.511863	18	28472	62	lstat
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Re-ordering the PYTHONPATH may be an idea.																																	

## History

### #1 - 21.08.2018 17:28 - Marcin Kuzminski [CTO]

Thanks for reporting this, interesting find. I however doubt it will speed up the SSH invocation script. There's much more overhead loading the pyramid environment than this. We started to investigate making it execute faster by making the env limited to required parts of SSH rather than whole "app"

### #2 - 01.04.2019 12:33 - Alexey Petrov

Hello! Is there any news to fix this problem? In version 4.16.1, the problem persists.

### #3 - 01.04.2019 12:40 - Marcin Kuzminski [CTO]

Hi,

We haven't worked on those parts since it contributes to roughly 10% of the execution time of the ssh-wrapper.

The big slowdown part is the loading of our Application, which roughly now takes 5-8s. We want to prioritize on making that faster before jumping into this kind of optimizations.

### #4 - 02.04.2019 11:31 - Alexey Petrov

Thanks for the fast reply! Optimization will take some time or you already have a solution that will be presented in the next updates?

### #5 - 02.04.2019 11:56 - Marcin Kuzminski [CTO]

Can you describe your use case, and why this is important for you?

There are already some changes in the code we did, but they aren't turned on.

<https://code.rhodecode.com/rhodecode-enterprise-ce/files/c75dd264c5f748c55e73391632ccd00a07f03f99/rhodecode/config/middleware.py#L249>

If you'd modify `should_load_all` function (<https://code.rhodecode.com/rhodecode-enterprise-ce/files/c75dd264c5f748c55e73391632ccd00a07f03f99/rhodecode/config/middleware.py#L67>) to e.g:

```
def should_load_all():
    """
    Returns if all application components should be loaded. In some cases it's
    desired to skip apps loading for faster shell script execution
    """
    is_ssh = os.environ.get('SSH_ORIGINAL_COMMAND', '')
    if is_ssh:
        return False
    return True
```

This should already be a big improvement for SSH wrapper speed.