

```
python3 ticketConverter.py administrator.ccache administrator.kirbi
python3 ticketConverter.py administrator.kirbi administrator_bank.ccache
```

执行结果如图 3-76 所示。

```
+ examples git:(master) x sudo python3 ticketConverter.py administrator.ccache administrator.kirbi
Impacket v0.9.22.dev1+20201105.154342.d7ed8dba - Copyright 2020 SecureAuth Corporation

[*] converting ccache to kirbi...
[+] done
+ examples git:(master) x sudo python3 ticketConverter.py administrator.kirbi administrator_bank.ccache
Impacket v0.9.22.dev1+20201105.154342.d7ed8dba - Copyright 2020 SecureAuth Corporation

[*] converting kirbi to ccache...
[+] done
+ examples git:(master) x ls -lh | grep administrator
-rw-r--r-- 1 root wheel 1.4K 6 11 12:38 administrator.ccache
-rw-r--r-- 1 root wheel 1.5K 6 18 09:48 administrator.kirbi
-rw-r--r-- 1 root wheel 1.4K 6 18 09:48 administrator_bank.ccache
```

图 3-76 执行结果

3.10.12 增加、删除和查询 SPN (addspn.py)

该脚本可用于增加、删除 SPN。但是增加 SPN 需要域管理员权限，而删除 SPN 只需要对目标属性有修改的权限即可。

```
# 查询目标 SPN，需要提供一个 spn 参数，可以是不存在的 SPN
python3 addspn.py -u 'xie.com\hack' -p 'P@ss1234' -t 'machine$' -s aa/aa -q
10.211.55.4
# 删除目标指定 SPN，需要提供一个 spn 参数，必须是存在的 SPN
python3 addspn.py -u 'xie.com\hack' -p 'P@ss1234' -t 'machine$' -s HOST/machine.
xie.com -r 10.211.55.4
```

执行结果如图 3-77 所示。

```
+ examples git:(master) x python3 addspn.py -u 'xie.com\hack' -p 'P@ss1234' -t 'machine$' -s aa/aa -q 10.211.55.4
Connecting to host...
Binding to host
[+] Bind OK
[+] Found modification target
DN: CN=machine,CN=Computers,DC=xie,DC=com - STATUS: Read - READ TIME: 2021-12-13T17:34:07.355519
dNSHostName: machine.xie.com
sAMAccountName: machine$
servicePrincipalName: RestrictedKrbHost/machine
RestrictedKrbHost/machine.xie.com
HOST/machine.xie.com

+ examples git:(master) x python3 addspn.py -u 'xie.com\hack' -p 'P@ss1234' -t 'machine$' -s HOST/machine.xie.com -r
10.211.55.4
Connecting to host...
Binding to host
[+] Bind OK
[+] Found modification target
[+] SPN Modified successfully
+ examples git:(master) x python3 addspn.py -u 'xie.com\hack' -p 'P@ss1234' -t 'machine$' -s aa/aa -q 10.211.55.4
Connecting to host...
Binding to host
[+] Bind OK
[+] Found modification target
DN: CN=machine,CN=Computers,DC=xie,DC=com - STATUS: Read - READ TIME: 2021-12-13T17:35:40.777758
dNSHostName: machine.xie.com
sAMAccountName: machine$
servicePrincipalName: RestrictedKrbHost/machine
RestrictedKrbHost/machine.xie.com
```

图 3-77 执行结果