systemctl & rpm

1551265 张伯阳

service


```
root@RHEL-zby:/etc/systemd/system (ssh)

[Unit]
Description=1551265-zby

[Service]
Type=forking
ExecStart=/usr/sbin/test-1551265
ExecStop=kill -s 9 `ps -aux | grep test | awk '{print $2}'`
ExecReload=kill -s 9 `ps -aux | grep test | awk '{print $2}'`;\
/usr/sbin/test-1551265
RemainAfterExit=no

[Install]
WantedBy=multi-user.target
~
~
~
~
~
~
~
~
~
~
~
~
"test-1551265.service" 13L, 292C
```

放在/etc/systemd/system 目录下

这个地方我卡了很久

最后发现很早之前在/etc/systemd/system 写了个 service

运行了一下发现没有反应 也没 rm 就去/usr/lib/systemd/system/编辑 service 了

然后不管怎么修改怎么运行都没有任何反应 最后 enable 看反馈突然注意到这

个

```
[root@RHEL-zby ~]# systemctl enable test-1551265.service
Created symlink from /etc/systemd/system/multi-user.target.wants/test-1551265.s
rvice to /etc/systemd/system/test-1551265.service.
```

尽然是从 etc 到 etc 根本就没有到 usr 于是乎到/etc/systemd/system 检查 果然

有个几天前瞎写的 service 将新写的覆盖之 运行就好了

```
/multi-user.target
drwxr-xr-x. 2 root root   87 9月   28 18:26 default.target.wants
drwxr-xr-x. 2 root root   32 9月   28 18:26 getty.target.wants
drwxr-xr-x. 2 root root 4096 10月  21 15:32 multi-user.target.wants
drwxr-xr-x. 2 root root   31 9月   28 18:27 remote-fs.target.wants
drwxr-xr-x. 2 root root   51 9月   28 18:26 sockets.target.wants
drwxr-xr-x. 2 root root  122 9月   28 18:27 sysinit.target.wants
drwxr-xr-x. 2 root root   44 9月   28 18:26 system-update.target.wants
-rw-r--r--. 1 root root  322 10月  21 15:37 test-1551265.service
drwxr-xr-x. 2 root root   29 9月   28 18:27 vmtoolsd.service.requires
[root@RHEL-zby system]# systemctl enable test-1551265.service
[root@RHEL-zby system]# systemctl start test-1551265.service
```

这里因为 systemctl 启动的 service 不会再绑 tty 了

所以 ps 差不到进程 -ef 可以

```
[root@RHEL-zby system]# systemctl enable test-1551265.service
[root@RHEL-zby system]# systemctl start test-1551265.service
[root@RHEL-zby system]# ps
   PID TTY          TIME CMD
  7382 pts/0    00:00:00 bash
  7526 pts/0    00:00:00 ps
```

```
[root@RHEL-zby system]# ps -ef |grep test
root      8568     1  0 10:47 ?        00:00:00 ./test [main 00:00:23]
root      8569  8568  0 10:47 ?        00:00:00 ./test [sub-01 00:00:22]
root      8570  8568  0 10:47 ?        00:00:00 ./test [sub-02 00:00:21]
root      8571  8568  0 10:47 ?        00:00:00 ./test [sub-03 00:00:20]
root      8573  8568  0 10:47 ?        00:00:00 ./test [sub-04 00:00:19]
root      8574  8568  0 10:47 ?        00:00:00 ./test [sub-05 00:00:18]
root      8575  8568  0 10:47 ?        00:00:00 ./test [sub-06 00:00:17]
root      8576  8568  0 10:47 ?        00:00:00 ./test [sub-07 00:00:16]
root      8577  8568  0 10:47 ?        00:00:00 ./test [sub-08 00:00:15]
root      8578  8568  0 10:47 ?        00:00:00 ./test [sub-09 00:00:14]
root      8579  8568  0 10:47 ?        00:00:00 ./test [sub-10 00:00:13]
root      8581  8488  0 10:48 pts/0    00:00:00 grep --color=auto test
[root@RHEL-zby system]#
```

```
[root@RHEL-zby system]# systemctl stop test-1551265.service
[root@RHEL-zby system]# ps -ef |grep test
root      8591  8488  0 10:49 pts/0    00:00:00 grep --color=auto test
[root@RHEL-zby system]#
```

```
[root@RHEL-zby system]# systemctl start test-1551265.service
[root@RHEL-zby system]# systemctl restart test-1551265.service
[root@RHEL-zby system]# ps -ef |grep test
root        8614       1  0 10:49 ?        00:00:00 ./test [main 00:00:02]
root        8615    8614  0 10:49 ?        00:00:00 ./test [sub-01 00:00:01]
root        8616    8614  0 10:49 ?        00:00:00 ./test [sub-02 00:00:00]
root        8618    8488  0 10:49 pts/0    00:00:00 grep --color=auto test
[root@RHEL-zby system]#
```

```
[root@RHEL-zby system]# systemctl disable test-1551265.service
Removed symlink /etc/systemd/system/multi-user.target.wants/test-1551265.service
.
[root@RHEL-zby system]#
```

验证 stop restart disable 都符合预期

rpm

不多说 先上.spec 代码 这也是这个作业的重点

```
Name:            test
Version:         1551265
Release:         zby
Summary:         test

License:         GPL
#URL:
Source0:         %{name}-%{version}.tar.bz2

BuildRoot:       %{_tmppath}/%{name}-%{version}-%{release}-root

BuildRequires:   gcc,make
#Requires:

%description
zby

%prep

%setup -q

%build
make

%install
rm -rf $RPM_BUILD_ROOT
%{__install} -d $RPM_BUILD_ROOT/usr/sbin
%{__install} -d $RPM_BUILD_ROOT/usr/lib64
%{__install} -d $RPM_BUILD_ROOT/etc
%{__install} -d $RPM_BUILD_ROOT/usr/1551265
%{__install} -D test-1551265.service  $RPM_BUILD_ROOT/usr/lib/systemd/system/test-1551265.service

make install DESTDIR=$RPM_BUILD_ROOT


%pre

echo 准备安装test-1551265
mkdir -p /usr/1551265


%post
        echo 完成安装test-1551265

%preun
        echo  准备卸载test-1551265


%postun
        echo  完成卸载test-1551265
        rm -rf /etc/1551265.conf
        rm -rf /usr/sbin/test-1551265
        rm -rf /usr/lib64/lib1551265.so
        rm -rf /usr/1551265/1551265.dat
        rm -rf /usr/lib/systemd/system/test-1551265.service
        rm -rf /root/rpmbuild/RPMS/x86_64/1551265test-0.x86_64.rpm
        rm -rf /root/rpmbuild/RPMS/x86_64/1551265-debuginfo-test-0.x86_64.rpm
        rm -rf /root/rpmbuild
        if [ "`ls -A /usr/1551265`" = "" ]; then `rm -rf /usr/1551265`; fi


%clean
rm -rf $RPM_BUILD_ROOT


%files
/etc/1551265.conf
/usr/sbin/test-1551265
/usr/lib64/lib1551265.so
/usr/1551265/1551265.dat
/usr/lib/systemd/system/test-1551265.service

%doc


%changelog
```

用 rpmbuild -ba test1.spec 生成 rpm 包

到 RPMS 目录的 x86_64 目录下安装包

检查文件已生成

卸载 检查文件已删除(这里之前忘了备份 直接把 rpmbuild 目录删了 东西没了吓尿)

```
[root@RHEL-zby x86_64]# rpm -e test
准备卸载 test-1551265
完成卸载 test-1551265
[root@RHEL-zby x86_64]# ll /usr/1551265/
ls: 无法访问 /usr/1551265/: 没有那个文件或目录
[root@RHEL-zby x86_64]#
```

重新安装一遍 不再截图

在/usr/1551265 目录下 touch 一个新文件 再卸载程序 可以看到 1551265 目录未被删除并且其中的文件也还在

```
[root@RHEL-zby x86_64]# cd /usr/1551265/
[root@RHEL-zby 1551265]# touch 1551265
[root@RHEL-zby 1551265]# ll
总用量 4
-rw-r--r--. 1 root root  0 10月 22 20:32 1551265
-rw-r--r--. 1 root root 15 10月 22 20:21 1551265.dat
[root@RHEL-zby 1551265]# cd ..
[root@RHEL-zby usr]# rpm -e t
tar              targetd              tcp_wrappers        tcsh
targetcli        tcpdump              tcp_wrappers-libs   teamd
[root@RHEL-zby usr]# rpm -e test
准备卸载 test-1551265
完成卸载 test-1551265
[root@RHEL-zby usr]# ll
总用量 180
drwxr-xr-x.   2 root root    21 10月 22 20:32 1551265
dr-xr-xr-x.   2 root root 32768 10月 15 17:18 bin
drwxr-xr-x.   2 root root     6 3月  10 2016 etc
drwxr-xr-x.   2 root root     6 3月  10 2016 games
drwxr-xr-x.  46 root root  8192 9月  28 19:19 include
dr-xr-xr-x.  40 root root  4096 10月  7 23:01 lib
dr-xr-xr-x.  63 root root 40960 10月 22 20:32 lib64
drwxr-xr-x.  24 root root  4096 9月  28 18:27 libexec
drwxr-xr-x.  12 root root   131 9月  28 18:25 local
dr-xr-xr-x.   2 root root 16384 10月 22 20:32 sbin
drwxr-xr-x. 130 root root  4096 10月 15 17:18 share
drwxr-xr-x.   4 root root    34 9月  28 18:25 src
lrwxrwxrwx.   1 root root    10 9月  28 18:25 tmp -> ../var/tmp
[root@RHEL-zby usr]# cd 1551265/
[root@RHEL-zby 1551265]# ll
总用量 0
-rw-r--r--. 1 root root 0 10月 22 20:32 1551265
[root@RHEL-zby 1551265]#
```

测试 makefile

make 　makeclean

```
[root@RHEL-zby 1551265-000106]# make
cc read.c -fPIC -shared -o lib1551265.so
cc -g -Wall -o test test.c -L. -l1551265 -Wl,-rpath .
[root@RHEL-zby 1551265-000106]# make clean
rm -rf lib1551265.so test test-1551265.rpm
```

make rpm

```
[root@RHEL-zby 1551265-000106]# make rpm
mkdir -pv ~/rpmbuild/{BUILD,BUILDROOT,RPMS,SOURCES,SPECS,SRPMS}
mkdir: 已创建目录 "/root/rpmbuild"
mkdir: 已创建目录 "/root/rpmbuild/BUILD"
mkdir: 已创建目录 "/root/rpmbuild/BUILDROOT"
mkdir: 已创建目录 "/root/rpmbuild/RPMS"
mkdir: 已创建目录 "/root/rpmbuild/SOURCES"
mkdir: 已创建目录 "/root/rpmbuild/SPECS"
mkdir: 已创建目录 "/root/rpmbuild/SRPMS"
cp test-1551265.tar.bz2 /root/rpmbuild/SOURCES
cp test.spec /root/rpmbuild/SPECS
rpmbuild -ba /root/rpmbuild/SPECS/test.spec
执行(%prep): /bin/sh -e /var/tmp/rpm-tmp.XAK6hQ
+ umask 022
+ cd /root/rpmbuild/BUILD
+ cd /root/rpmbuild/BUILD
```

make install 　　make uninstall

```
[root@RHEL-zby 1551265-000106]# make install
cc read.c -fPIC -shared -o lib1551265.so
cc -g -Wall -o test test.c -L. -l1551265 -Wl,-rpath .
cp test /usr/sbin/test-1551265
cp lib1551265.so /usr/lib64
mkdir -p /usr/1551265
cp 1551265.dat /usr/1551265
cp 1551265.conf /etc
[root@RHEL-zby 1551265-000106]# make uninstall
rm -rf /etc/1551265.conf /usr/sbin/test-1551265 /usr/lib64/lib1551265.so /usr/15
51265/1551265.dat /usr/lib/systemd/system/test-1551265.service/root/rpmbuild/RPM
S/x86_64/test-1551265-0.x86_64.rpm /root/rpmbuild/RPMS/x86_64/1551265-debuginfo-
test-0.x86_64.rpm /root/rpmbuild
if [ "`ls -A /usr/1551265`" = "" ]; then `rm -rf /usr/1551265`;fi;
[root@RHEL-zby 1551265-000106]#
```