

Dear developers,

I faced with a problem using quite old version of libguestfs library (1.16.34 rhel=6, release=2.el6) which is default for Red Hat Enterprise Virtualization 3.1. I can forward this issue to the RH Support, but I would like to ask you for help too.

I'm working with a highly available RHEV cluster (2 RHEV-M, 2 RHEV-H, 1 SCSI storage) and I noticed that one of the virtual machine disks can't be accessed with libguestfs toolset (all the others work with libguestfs finely).

Here is what I am doing in brief:

I have a virtual machine called "postgres", which the only disk image "vs\_Disk1" belongs to.

The screenshot displays the RHEV web interface. The top navigation bar includes tabs for Data Centers, Clusters, Hosts, Storage, Disks, Virtual Machines, Pools, Templates, and Users. The main content area is divided into two sections.

The first section shows a list of Virtual Machines (VMs) with the following columns: Name, Host, IP Address, Cluster, Data Center, Memory, CPU, Network, Display, Status, Uptime, and Logged-in User. The VMs listed include build-list, build-ss, build-ss001, build-ss002, fs, ipa1, koji-build-test, koji-build-test1, koji\_hub, koji-hub-test, postgres, share, test1, ts2, and vc2. The 'postgres' VM is highlighted in blue.

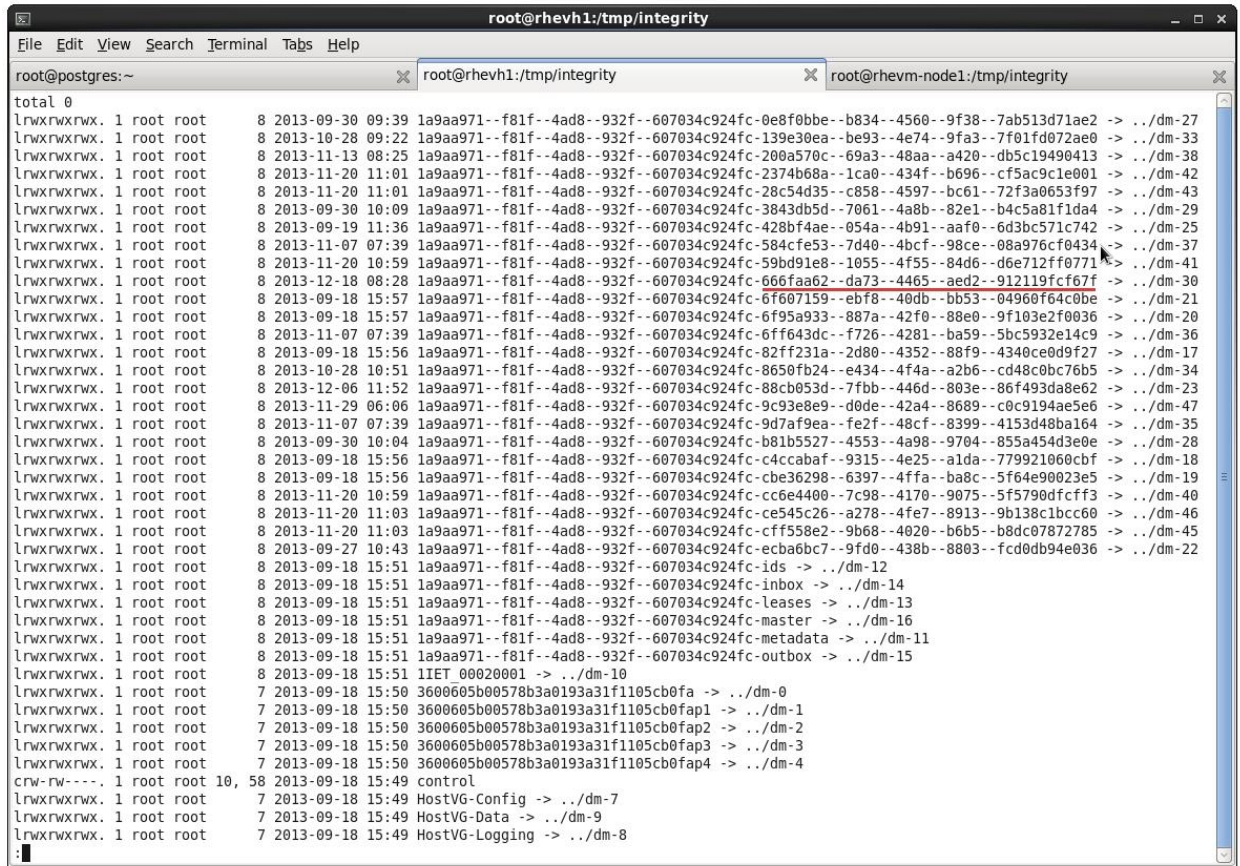
The second section shows the details for the 'vs\_Disk1' disk image. It includes tabs for General, Network Interfaces, Disks, Snapshots, Applications, and Permissions. The disk details table has columns: Alias, Virtual Size, Actual Size, Allocation Policy, Storage Domain, Creation Date, Attached To, Interface, Status, and Description. The 'vs\_Disk1' disk is shown with a virtual size of 40 GB and an actual size of 48 GB, attached to the 'postgres' VM via a VirtIO interface.

The third section shows the details for the 'postgres' VM. It includes tabs for General, Virtual Machines, Network Interfaces, Host Hooks, and Permissions. The VM details table has columns: Name, Cluster, IP Address, Memory, CPU, Network, Status, and Uptime. The 'postgres' VM is shown with a cluster of 'cluster', IP address of '10.0.55.60 10.49.11.210', and a status of 'Up'.



I can make sure that the block device with a corresponding disk image ID is mapped to the hypervisor's file system:

```
$ ll /dev/mapper
```



```
root@rhel1:~/tmp/integrity
File Edit View Search Terminal Tabs Help
root@postgres:~
root@rhel1:~/tmp/integrity
root@rhelvm-node1:~/tmp/integrity
total 0
lrwxrwxrwx. 1 root root 8 2013-09-30 09:39 1a9aa971--f81f--4ad8--932f--607034c924fc-0e8f0bbe--b834--4560--9f38--7ab513d71ae2 -> ../dm-27
lrwxrwxrwx. 1 root root 8 2013-10-28 09:22 1a9aa971--f81f--4ad8--932f--607034c924fc-139e30ea--be93--4e74--9fa3--7f01fd072ae0 -> ../dm-33
lrwxrwxrwx. 1 root root 8 2013-11-13 08:25 1a9aa971--f81f--4ad8--932f--607034c924fc-200a570c--69a3--48aa--a420--db5c19490413 -> ../dm-38
lrwxrwxrwx. 1 root root 8 2013-11-20 11:01 1a9aa971--f81f--4ad8--932f--607034c924fc-2374b68a--1ca0--434f--b69e--cf5ac9c1e001 -> ../dm-42
lrwxrwxrwx. 1 root root 8 2013-11-20 11:01 1a9aa971--f81f--4ad8--932f--607034c924fc-28c54d35--c858--4597--bc61--72f3a0653f97 -> ../dm-43
lrwxrwxrwx. 1 root root 8 2013-09-30 10:09 1a9aa971--f81f--4ad8--932f--607034c924fc-3843db5d--7061--4a8b--82e1--b4c5a81f1da4 -> ../dm-29
lrwxrwxrwx. 1 root root 8 2013-09-19 11:36 1a9aa971--f81f--4ad8--932f--607034c924fc-428bf4ae--054a--4b91--aa0f--6d3bc571c742 -> ../dm-25
lrwxrwxrwx. 1 root root 8 2013-11-07 07:39 1a9aa971--f81f--4ad8--932f--607034c924fc-584cfe53--7d40--4bcf--98ce--08a976cf0434 -> ../dm-37
lrwxrwxrwx. 1 root root 8 2013-11-20 10:59 1a9aa971--f81f--4ad8--932f--607034c924fc-59bd91e8--1055--4f55--84d6--d6e712ff0771 -> ../dm-41
lrwxrwxrwx. 1 root root 8 2013-12-18 08:28 1a9aa971--f81f--4ad8--932f--607034c924fc-666faa62--da73--4465--aed2--912119fcf67f -> ../dm-30
lrwxrwxrwx. 1 root root 8 2013-09-18 15:57 1a9aa971--f81f--4ad8--932f--607034c924fc-6f607159--ebf8--40db--bb53--04960f64c0be -> ../dm-21
lrwxrwxrwx. 1 root root 8 2013-09-18 15:57 1a9aa971--f81f--4ad8--932f--607034c924fc-6f95a933--887a--42f0--88e0--9f103e2f0036 -> ../dm-20
lrwxrwxrwx. 1 root root 8 2013-11-07 07:39 1a9aa971--f81f--4ad8--932f--607034c924fc-6ff643dc--f72e--4281--ba59--5bc5932e14c9 -> ../dm-36
lrwxrwxrwx. 1 root root 8 2013-09-18 15:56 1a9aa971--f81f--4ad8--932f--607034c924fc-82ff231a--2d80--4352--88f9--4340ce0d9f27 -> ../dm-17
lrwxrwxrwx. 1 root root 8 2013-10-28 10:51 1a9aa971--f81f--4ad8--932f--607034c924fc-8650fb24--e434--4f4a--a2b6--cd48c0bc76b5 -> ../dm-34
lrwxrwxrwx. 1 root root 8 2013-12-06 11:52 1a9aa971--f81f--4ad8--932f--607034c924fc-88cb053d--7fbb--446d--803e--86f493da8e62 -> ../dm-23
lrwxrwxrwx. 1 root root 8 2013-11-29 06:06 1a9aa971--f81f--4ad8--932f--607034c924fc-9c93e8e9--d0de--42a4--8689--c0c9194ae5e6 -> ../dm-47
lrwxrwxrwx. 1 root root 8 2013-11-07 07:39 1a9aa971--f81f--4ad8--932f--607034c924fc-9d7af9ea--fe2f--48cf--8399--4153d48ba164 -> ../dm-35
lrwxrwxrwx. 1 root root 8 2013-09-30 10:04 1a9aa971--f81f--4ad8--932f--607034c924fc-b01b5527--4553--4a98--9704--855a454d3e0e -> ../dm-28
lrwxrwxrwx. 1 root root 8 2013-09-18 15:56 1a9aa971--f81f--4ad8--932f--607034c924fc-c4ccabaf--9315--4e25--a1da--779921060cbf -> ../dm-18
lrwxrwxrwx. 1 root root 8 2013-09-18 15:56 1a9aa971--f81f--4ad8--932f--607034c924fc-cbe36298--6397--4ffa--ba8c--5f64e90023e5 -> ../dm-19
lrwxrwxrwx. 1 root root 8 2013-11-20 10:59 1a9aa971--f81f--4ad8--932f--607034c924fc-cc6e4400--7c98--4170--9075--5f5790dfcfc3 -> ../dm-40
lrwxrwxrwx. 1 root root 8 2013-11-20 11:03 1a9aa971--f81f--4ad8--932f--607034c924fc-ce545c26--a278--4fe7--8913--9b138c1bcc60 -> ../dm-46
lrwxrwxrwx. 1 root root 8 2013-11-20 11:03 1a9aa971--f81f--4ad8--932f--607034c924fc-cff558e2--9b68--4020--b6b5--b8dc07872785 -> ../dm-45
lrwxrwxrwx. 1 root root 8 2013-09-27 10:43 1a9aa971--f81f--4ad8--932f--607034c924fc-ecba6bc7--9fd0--438b--8803--fcd0db94e036 -> ../dm-22
lrwxrwxrwx. 1 root root 8 2013-09-18 15:51 1a9aa971--f81f--4ad8--932f--607034c924fc-ids -> ../dm-12
lrwxrwxrwx. 1 root root 8 2013-09-18 15:51 1a9aa971--f81f--4ad8--932f--607034c924fc-inbox -> ../dm-14
lrwxrwxrwx. 1 root root 8 2013-09-18 15:51 1a9aa971--f81f--4ad8--932f--607034c924fc-leases -> ../dm-13
lrwxrwxrwx. 1 root root 8 2013-09-18 15:51 1a9aa971--f81f--4ad8--932f--607034c924fc-master -> ../dm-16
lrwxrwxrwx. 1 root root 8 2013-09-18 15:51 1a9aa971--f81f--4ad8--932f--607034c924fc-metadata -> ../dm-11
lrwxrwxrwx. 1 root root 8 2013-09-18 15:51 1a9aa971--f81f--4ad8--932f--607034c924fc-outbox -> ../dm-15
lrwxrwxrwx. 1 root root 8 2013-09-18 15:51 IIET 00020001 -> ../dm-10
lrwxrwxrwx. 1 root root 7 2013-09-18 15:50 3600605b00578b3a0193a31f1105cb0fa -> ../dm-0
lrwxrwxrwx. 1 root root 7 2013-09-18 15:50 3600605b00578b3a0193a31f1105cb0fap1 -> ../dm-1
lrwxrwxrwx. 1 root root 7 2013-09-18 15:50 3600605b00578b3a0193a31f1105cb0fap2 -> ../dm-2
lrwxrwxrwx. 1 root root 7 2013-09-18 15:50 3600605b00578b3a0193a31f1105cb0fap3 -> ../dm-3
lrwxrwxrwx. 1 root root 7 2013-09-18 15:50 3600605b00578b3a0193a31f1105cb0fap4 -> ../dm-4
crw-rw----. 1 root root 10, 58 2013-09-18 15:49 control
lrwxrwxrwx. 1 root root 7 2013-09-18 15:49 HostVG-Config -> ../dm-7
lrwxrwxrwx. 1 root root 7 2013-09-18 15:49 HostVG-Data -> ../dm-9
lrwxrwxrwx. 1 root root 7 2013-09-18 15:49 HostVG-Logging -> ../dm-8
```

Now I am trying to execute simple script `postgres.py`:

```
#!/usr/bin/env python

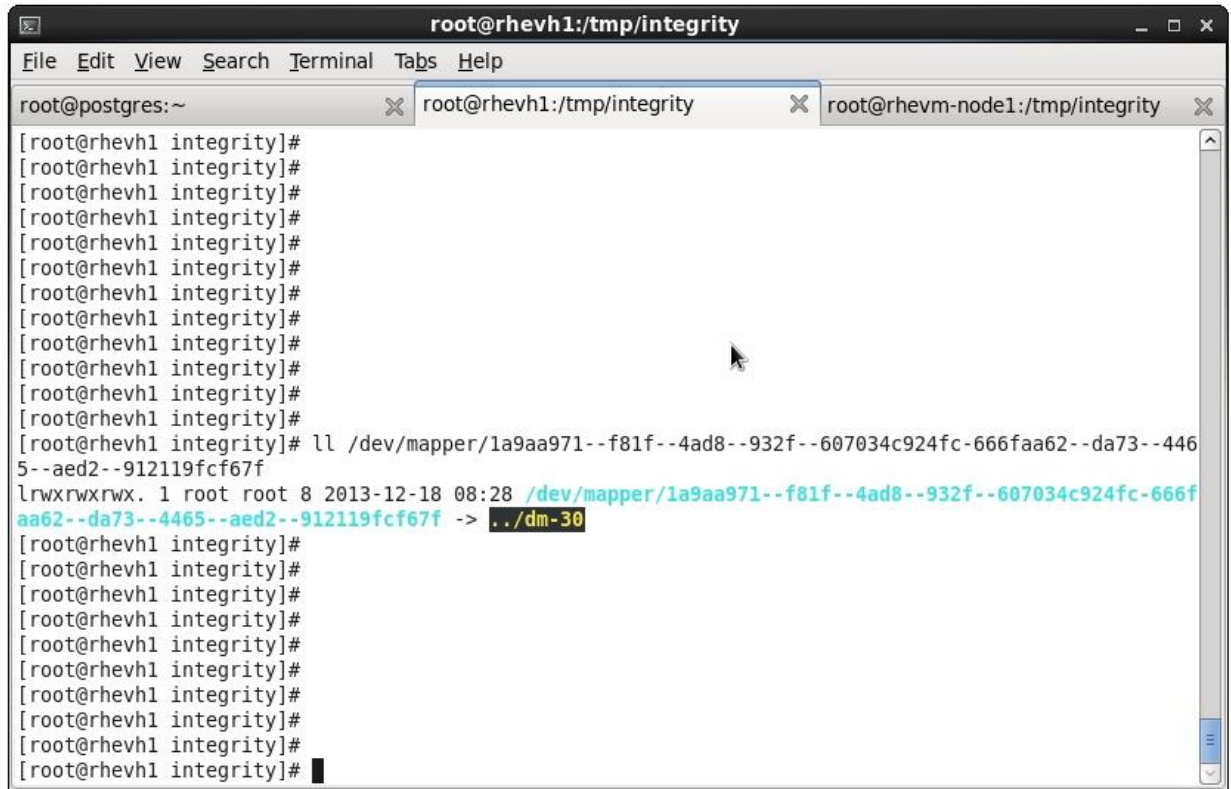
import guestfs
g = guestfs.GuestFS()
g.add_drive_opts("/dev/mapper/1a9aa971--f81f--4ad8--932f--607034c924fc-666faa62--da73--4465--aed2--912119fcf67f", readonly=1)
g.launch()
g.shutdown()
g.close()
```

It fails with an error, (full log is attached to this message):

```
could not open disk image /dev/mapper/1a9aa971--f81f--4ad8--932f--607034c924fc-666faa62--da73--4465--aed2--912119fcf67f: No such file or directory
libguestfs: child_cleanup: 0x23dc5d0: child process died
```



First let's check that disk image really exists:

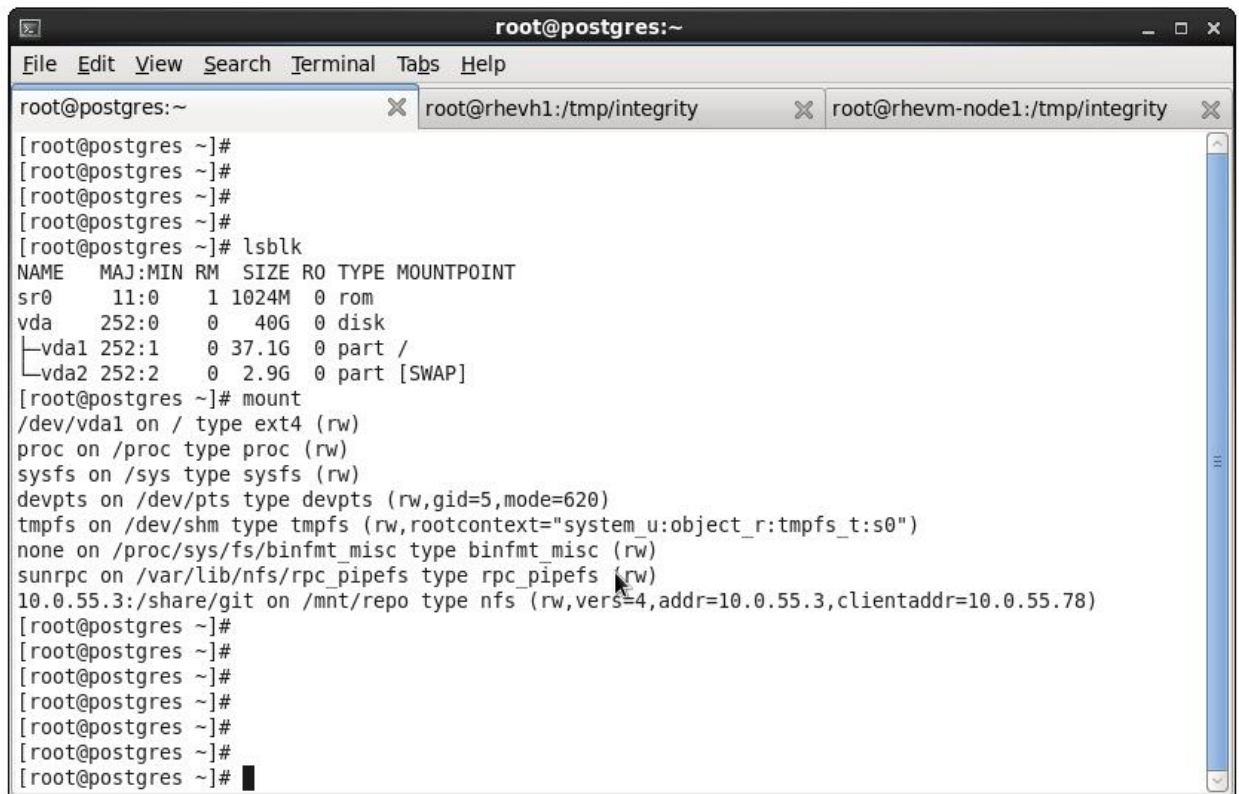


A terminal window titled "root@rhev1:/tmp/integrity" with three tabs: "root@postgres:~", "root@rhev1:/tmp/integrity", and "root@rhev1-node1:/tmp/integrity". The terminal shows a series of prompts "[root@rhev1 integrity]#" followed by a command to list the contents of a directory. The output shows a file named "dm-30" with permissions "lrwxrwxrwx", size "1", owner "root", group "root", and creation date "2013-12-18 08:28". The file path is "/dev/mapper/1a9aa971--f81f--4ad8--932f--607034c924fc-666faa62--da73--4465--aed2--912119fcf67f".

```
root@postgres:~
root@rhev1:/tmp/integrity
root@rhev1-node1:/tmp/integrity

[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]# ll /dev/mapper/1a9aa971--f81f--4ad8--932f--607034c924fc-666faa62--da73--4465--aed2--912119fcf67f
lrwxrwxrwx. 1 root root 8 2013-12-18 08:28 /dev/mapper/1a9aa971--f81f--4ad8--932f--607034c924fc-666faa62--da73--4465--aed2--912119fcf67f -> ../dm-30
[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]#
[root@rhev1 integrity]#
```

Then let's go the "postgres" VM and run basic disk management commands:



A terminal window titled "root@postgres:~" with three tabs: "root@postgres:~", "root@rhev1:/tmp/integrity", and "root@rhev1-node1:/tmp/integrity". The terminal shows a series of prompts "[root@postgres ~]#" followed by the command "lsblk". The output shows a table of disk devices with columns: NAME, MAJ:MIN, RM, SIZE, RO, TYPE, MOUNTPOINT. The devices listed are sr0 (11:0, 1, 1024M, 0, rom), vda (252:0, 0, 40G, 0, disk), vda1 (252:1, 0, 37.1G, 0, part, /), and vda2 (252:2, 0, 2.9G, 0, part, [SWAP]). The terminal also shows the output of the "mount" command, listing various filesystems and their mount points.

```
root@postgres:~
root@rhev1:/tmp/integrity
root@rhev1-node1:/tmp/integrity

[root@postgres ~]#
[root@postgres ~]#
[root@postgres ~]#
[root@postgres ~]#
[root@postgres ~]# lsblk
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
sr0 11:0 1 1024M 0 rom
vda 252:0 0 40G 0 disk
├─vda1 252:1 0 37.1G 0 part /
└─vda2 252:2 0 2.9G 0 part [SWAP]
[root@postgres ~]# mount
/dev/vda1 on / type ext4 (rw)
proc on /proc type proc (rw)
sysfs on /sys type sysfs (rw)
devpts on /dev/pts type devpts (rw,gid=5,mode=620)
tmpfs on /dev/shm type tmpfs (rw,rootcontext="system_u:object_r:tmpfs_t:s0")
none on /proc/sys/fs/binfmt_misc type binfmt_misc (rw)
sunrpc on /var/lib/nfs/rpc_pipefs type rpc_pipefs (rw)
10.0.55.3:/share/git on /mnt/repo type nfs (rw,vers=4,addr=10.0.55.3,clientaddr=10.0.55.78)
[root@postgres ~]#
[root@postgres ~]#
[root@postgres ~]#
[root@postgres ~]#
[root@postgres ~]#
[root@postgres ~]#
```

So you can see that machine is operating normally, but we cannot access its disk image using the libguestfs toolset. The reason is not clear for me, because libguestfs works with all of the rest images finely, and I cannot find the mentioned disk image distinctions. So I am asking you for help now.

Attachments:

1. **libguestfs-tool-test.log** - libguestfs-test-tool output;
2. **postgres.log** - postgres.py debugging log;