CORPUS STRUCTURE

ceph.git/ceph-object-corpus is a submodule.:

```
bin/   # misc scripts
archive/$version/objects/$type/$hash  # a sample of encoded objects from a specific version
```

You can also mark known or deliber incompatibilities between versions with:

```
archive/$version/forward_incompat/$type
```

The presense of a file indicates that new versions of code cannot decode old objects across that $version (this is normally the case).

HOW TO GENERATE AN OBJECT CORPUS

We can generate an object corpus for a particular version of ceph like so.

1. Checkout a clean repo (best not to do this where you normally work):

   git clone ceph.git cd ceph git submodule update –init

1. Build with flag to dump objects to /tmp/foo:

   rm -rf /tmp/foo ; mkdir /tmp/foo ./do_autogen.sh -e /tmp/foo make

1. Start via vstart:

   cd src MON=3 OSD=3 MDS=3 RGW=1 ./vstart.sh -n -x

1. Use a much functionality of the cluster as you can, to exercise as many object encoder methods as possible:

   ./rados -p rbd bench 10 write -b 123 ./ceph osd out 0 ./init-ceph stop osd.1 for f in ../qa/workunits/cls/*.sh ; do PATH=".:$PATH" $f ; done ../qa/workunits/rados/test.sh ./ceph_test_librbd ./ceph_test_libcephfs ./init-ceph restart mds.a

Do some more stuff with rgw if you know how.

1. Stop:

   ./stop.sh

1. Import the corpus (this will take a few minutes):

   test/encoding/import.sh /tmp/foo *./ceph-dencoder version* ../ceph-object-corpus/archive test/encoding/import-generated.sh ../ceph-object-corpus/archive

1. Prune it! There will be a bazillion copies of various objects, and we only want a representative sample.:

   pushd ../ceph-object-corpus bin/prune-archive.sh popd

1. Verify the tests pass:

   make check-local

1. Commit it to the corpus repo and push:

   pushd ../ceph-object-corpus git checkout -b wip-new git add archive/*../src/ceph-dencoder version* git commit -m *../src/ceph-dencoder version* git remote add cc ceph.com:/git/ceph-object-corpus.git git push cc wip-new popd

1. Go test it out:

   cd my/regular/tree cd ceph-object-corpus git fetch origin git checkout wip-new cd ../src make check-local

1. If everything looks good, update the submodule master branch, and commit the submodule in ceph.git.