BuildFuseDfs023

Build [FuseDfs](#) on 0.23 and higer

I submitted a patch with https://issues.apache.org/jira/browse/HDFS-2696 which if integrated would render most of this page obsolete.

If you want to build fuse-dfs on 0.23 snapshot branch, on ubuntu linux 11.10 (important, as you'll see🙂

First you need to do a

$ mvn package -Pnative

in hadoop-common/hadoop-hdfs-project/hadoop-hdfs. You'll get a target/native/ subdir, go there and do a make install so that you'll have libhdfs.so in a system libdir.

Then I went to hadoop-hdfs/src/contrib and typed:

$ ant compile -Dfusedfs=1

it complained about not having hadoop-common/hadoop-hdfs-project/hadoop-hdfs/ivy/libraries.properties
– that (empty) file is in hadoop-common/hadoop-hdfs-project/hadoop-hdfs/src/contrib/fuse-dfs/ivy/libraries.properties).

After I copied it in the expected place, I got :

```
     [exec] In file included from fuse_impls.h:26:0,
      [exec]                   from fuse_dfs.c:21:
      [exec] fuse_context_handle.h:22:18: fatal error: hdfs.h: No such
 file or directory
```

If I copied hdfs.h from the src/main/native dir to /usr/local/include, just to make it happy quickly. Next error:

```
    [exec] fuse_impls_write.c: In function 'dfs_write':
      [exec] fuse_impls_write.c:38:16: warning: cast to pointer from
integer of different size [-Wint-to-pointer-cast]
      [exec] fuse_dfs.o: In function `is_protected':
      [exec]
/home/petru/work/ubeeko/hadoo.apache.org/0.23/hadoop-common/hadoop-hdfs-project/hadoop-hdfs/src/contrib/fuse-dfs
/src/fuse_dfs.c:27:

undefined reference to `fuse_get_context'
```

This is because of this: https://bugs.launchpad.net/ubuntu/+source/fuse/+bug/878612

so just edit the failing linking command which something like this :

```
gcc -Wall -g -Wall -O3
-L/home/petru/work/ubeeko/hadoo.apache.org/0.23/hadoop-common/hadoop-hdfs-project/hadoop-hdfs/build/c++/Linux-
i386-32/lib

-lhdfs -L/lib -lfuse -L/usr/local/java/jdk/jre/lib/i386/server -ljvm  -o
fuse_dfs fuse_dfs.o fuse_options.o fuse_trash.o fuse_stat_struct.o
fuse_users.o fuse_init.o fuse_connect.o fuse_impls_access.o
fuse_impls_chmod.o fuse_impls_chown.o fuse_impls_create.o
fuse_impls_flush.o fuse_impls_getattr.o fuse_impls_mkdir.o
fuse_impls_mknod.o fuse_impls_open.o fuse_impls_read.o
fuse_impls_release.o fuse_impls_readdir.o fuse_impls_rename.o
fuse_impls_rmdir.o fuse_impls_statfs.o fuse_impls_symlink.o
fuse_impls_truncate.o fuse_impls_utimens.o fuse_impls_unlink.o
fuse_impls_write.o
```

by moving all the -L and -l part at the end, then:

```
$ cd src/
$ gcc -Wall -g -Wall -O3  -o fuse_dfs fuse_dfs.o fuse_options.o
fuse_trash.o fuse_stat_struct.o fuse_users.o fuse_init.o fuse_connect.o
fuse_impls_access.o fuse_impls_chmod.o fuse_impls_chown.o
fuse_impls_create.o fuse_impls_flush.o fuse_impls_getattr.o
fuse_impls_mkdir.o fuse_impls_mknod.o fuse_impls_open.o
fuse_impls_read.o fuse_impls_release.o fuse_impls_readdir.o
fuse_impls_rename.o fuse_impls_rmdir.o fuse_impls_statfs.o
fuse_impls_symlink.o fuse_impls_truncate.o fuse_impls_utimens.o
fuse_impls_unlink.o fuse_impls_write.o
-L/home/petru/work/ubeeko/hadoo.apache.org/0.23/hadoop-common/hadoop-hdfs-project/hadoop-hdfs/build/c++/Linux-
i386-32/lib

-lhdfs -L/lib -lfuse -L/usr/local/java/jdk/jre/lib/i386/server -ljvm
```