Subject: [PATCH 08/10] sysfs: Implement sysfs_delete_link and sysfs_rename_link
Posted by ebiederm on Sat, 01 Dec 2007 09:30:52 GMT
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When removing a symlink sysfs_remove_link does not provide enough
information to figure out which tagged directory the symlink falls in.
So I need sysfs_delete_link which is passed the target of the symlink
to delete.

Further half the time when we are removing a symlink the code is
actually renaming the symlink but not doing so explicitly because we
don't have a symlink rename method. So I have added sysfs_rename_link
as well.

Both of these functions now have enough information to find a symlink
in a tagged directory. The only restriction is that they must be
called before the target kobject is renamed or deleted. If they are
called later I loose track of which tag the target kobject was marked
with and can no longer find the old symlink to remove it.

Signed-off-by: Eric W. Biederman <ebiederm@xmission.com>
---
 fs/sysfs/symlink.c | 31 ++++++++++++++++++++++++++++++++++
 include/linux/sysfs.h | 17 ++++++++++++++++++
 2 files changed, 48 insertions(+), 0 deletions(-)

diff --git a/fs/sysfs/symlink.c b/fs/sysfs/symlink.c
index b0f8070..89c98cb 100644
--- a/fs/sysfs/symlink.c
+++ b/fs/sysfs/symlink.c
@@ -80,6 +80,21 @@ int sysfs_create_link(struct kobject * kobj, struct kobject * target, const
char
 }

 /**
+ * sysfs_delete_link - remove symlink in object's directory.
+ * @kobj: object we're acting for.
+ * @targ: object we're pointing to.
+ * @name: name of the symlink to remove.
+ *
+ * Unlike sysfs_remove_link sysfs_delete_link has enough information
+ * to successfully delete symlinks in tagged directories.
+ */
+void sysfs_delete_link(struct kobject *kobj, struct kobject *targ,
+   const char *name)
+{
+ sysfs_hash_and_remove(targ, kobj->sd, name);
+}

```
+
+/**
  * sysfs_remove_link - remove symlink in object's directory.
  * @kobj: object we're acting for.
  * @name: name of the symlink to remove.
@@ -90,6 +105,22 @@ void sysfs_remove_link(struct kobject * kobj, const char * name)
  sysfs_hash_and_remove(kobj, kobj->sd, name);
 }

+/**
+ * sysfs_rename_link - rename symlink in object's directory.
+ * @kobj: object we're acting for.
+ * @targ: object we're pointing to.
+ * @old: previous name of the symlink.
+ * @new: new name of the symlink.
+ *
+ * A helper function for the common rename symlink idiom.
+ */
+int sysfs_rename_link(struct kobject *kobj, struct kobject *targ,
+   const char *old, const char *new)
+{
+ sysfs_delete_link(kobj, targ, old);
+ return sysfs_create_link(kobj, targ, new);
+}
+
 static int sysfs_get_target_path(struct sysfs_dirent *parent_sd,
      struct sysfs_dirent *target_sd, char *path)
 {
diff --git a/include/linux/sysfs.h b/include/linux/sysfs.h
index c8d7a69..c2e8b0d 100644
--- a/include/linux/sysfs.h
+++ b/include/linux/sysfs.h
@@ -109,6 +109,12 @@ int __must_check sysfs_create_link(struct kobject *kobj, struct kobject
*target,
        const char *name);
 void sysfs_remove_link(struct kobject *kobj, const char *name);

+int sysfs_rename_link(struct kobject *kobj, struct kobject *target,
+   const char *old_name, const char *new_name);
+
+void sysfs_delete_link(struct kobject *dir, struct kobject *targ,
+   const char *name);
+
 int __must_check sysfs_create_group(struct kobject *kobj,
         const struct attribute_group *grp);
 void sysfs_remove_group(struct kobject *kobj,
@@ -195,6 +201,17 @@ static inline void sysfs_remove_link(struct kobject *kobj, const char
*name)
```

```
 ;
}

+static inline int sysfs_rename_link(struct kobject * k, struct kobject *t,
+        const char *old_name, const char * new_name)
+{
+ return 0;
+}
+
+static inline void sysfs_delete_link(struct kobject *k, struct kobject *t,
+         const char *name)
+{
+}
+
 static inline int sysfs_create_group(struct kobject *kobj,
         const struct attribute_group *grp)
 {
--
1.5.3.rc6.17.g1911
```