

## TYPO3.Flow - Bug #35935

### Symlinks still don't work reliably under Windows

2012-04-13 09:31 - Adrian Föder

<b>Status:</b> Closed	<b>Start date:</b> 2012-04-13
<b>Priority:</b> Must have	<b>Due date:</b>
<b>Assignee:</b> Karsten Dambekalns	<b>% Done:</b> 0%
<b>Category:</b> Core	<b>Estimated time:</b> 0.00 hour
<b>Target version:</b> 1.1	<b>Complexity:</b>
<b>PHP Version:</b>	
<b>Has patch:</b> No	
<b>Description</b>	
Creation of symlinks under Windows is still not reliable due to, honestly, weird behavior of windows' UAC. The system command <code>mklink /J</code> seems to be interesting because it doesn't need as much elevated user permissions like <code>mklink /D</code> does (the opposite is a junction vs. a symlink)	
I will gamble around with that a bit.	
<b>Related issues:</b>	
Related to TYPO3.Flow - Bug #33968: Missing privileges to create symlinks in ...	<b>Closed</b> <b>2012-02-16</b>
Related to TYPO3.Flow - Task #11683: symlink() is not working on Windows XP	<b>Resolved</b> <b>2010-12-24</b>
Related to TYPO3 Core - Bug #64409: Failing unit tests on windows because of ...	<b>Closed</b> <b>2015-01-21</b>

#### History

##### #1 - 2012-04-13 15:11 - Gerrit Code Review

- Status changed from New to Under Review

Patch set 1 for branch **master** has been pushed to the review server.

It is available at <http://review.typo3.org/10401>

##### #2 - 2012-04-13 16:07 - Adrian Föder

basically, this entry: [http://social.msdn.microsoft.com/Forums/en/os\\_fileservices/thread/e967ab01-3136-4fda-9677-e5ecaaa2f694](http://social.msdn.microsoft.com/Forums/en/os_fileservices/thread/e967ab01-3136-4fda-9677-e5ecaaa2f694) explains why this is. The problem, mainly, is; even with the Security Policy for creating symbolic links is granted to not only Administrators; that it doesn't work if the intended User is itself a member of the Administrator group.

After giving "Everyone" the privilege "Create symbolic link", please reboot (or log off) and log in as a standard user, a user who is NOT a member of group "Administrators". You should be able to create a symbolic link using `mklink` command in a directory where user has write permissions.

The reason a member of "Administrators" cannot create symbolic link is because "Create symbolic link" privilege is removed from the filtered token since user is a member of "Administrators" group. Section "Access Token Changes" of article at link <http://msdn.microsoft.com/en-us/library/bb530410.aspx> describes in more details on how filtered token is created.

##### #3 - 2012-04-13 16:34 - Adrian Föder

In short, a "primitive" user would be able to create Symlinks (with the mentioned `secpol.msc` setting done), while an Administrator won't (if he's not in Elevated state).

So, setting the Apache service to be run under a deriving user may work; additionally (this is to be checked), it's likely that the default account (which is SYSTEM) **has** sufficient rights to create symlinks.

The subsequent `system()` / `exec()` requests then also would be run under SYSTEM user, hence Symlink creation would work.

## So the prescribed configuration could be...

- open the local policy editor `secpol.msc`
- locate *Security Settings > Local Policies > User Rights Management > Create symbolic links*  
*German: Sicherheitseinstellungen > Lokale Richtlinien > Zuweisen von Benutzerrechten > Erstellen symbolischer Verknüpfungen*
- Add the SYSTEM group (or whatever the Apache service is run under, per default it's SYSTEM)
- Keep in mind that, if you are logged in as Administrator and want to call FLOW3 via the console, you must run the Command Line Prompt *elevated* (i.e. "Run as Administrator").

**#4 - 2012-04-30 23:11 - Gerrit Code Review**

Patch set 2 for branch **master** has been pushed to the review server.  
It is available at <http://review.typo3.org/10401>

**#5 - 2012-05-24 14:48 - Karsten Dambekalns**

- *Status changed from Under Review to Closed*
- *Assignee set to Karsten Dambekalns*