Redmine - Defect #35539

Race condition (possible filename collision) in Attachment.disk_filename

2021-07-07 07:25 - Jens Krämer

Status:	Closed		**Start date:**	
Priority:	Normal		**Due date:**	
Assignee:	Go MAEDA		**% Done:**	0%
Category:	Attachments		**Estimated time:**	0.00 hour
Target version:	5.0.0			
Resolution:			**Affected version:**	

Description

When two (or more) files with the same name are uploaded at the same time, it may happen that two or more of the resulting attachment records end up using the same disk file, resulting in data loss if the files actually differ in content. This was already previously mentioned in #34479-2 (but was unrelated to that issue and hence got "lost")

The problem is that Attachment.disk_filename finds a non-existant filename, but fails to "claim" this name in the file system while doing so. So nothing stops a parallel process to end up using the same name if it tries to do so before the first process actually creates the file.

This patch, extracted from Planio , instead tries to create a file directly, with the File::EXCL flag set, catches the error which means 'filename taken already' and retries until the file is created. This way, filenames are guaranteed to be unique by the underlying file system.

Related issues:

Related to Redmine - Patch #35720: Defect: Binmode specified twice	**Closed**
Related to Redmine - Patch #35721: Unlink files after they're closed	**Closed**

Associated revisions

Revision 21071 - 2021-07-19 15:27 - Go MAEDA

Ensure unique attachment filenames (#35539).

Patch by Jens Krämer.

Revision 21193 - 2021-08-18 04:34 - Go MAEDA

Fix that binmode specified twice (#35539, #35720).

Patch by Pavel Rosický.

Revision 21194 - 2021-08-18 04:47 - Go MAEDA

Don't unlink files before closing them (#35539, #35721).

Patch by Pavel Rosický.

History

#1 - 2021-07-09 04:00 - Go MAEDA

- Target version set to Candidate for next major release

#2 - 2021-07-11 04:05 - Go MAEDA

- Target version changed from Candidate for next major release to 5.0.0

Setting the target version to 5.0.0.

#3 - 2021-07-19 15:28 - Go MAEDA

- Status changed from New to Closed

- Assignee set to Go MAEDA

Committed the patch. Thank you.

#4 - 2021-08-08 03:44 - Go MAEDA

- Related to Patch #35720: Defect: Binmode specified twice added

#5 - 2021-08-08 03:47 - Go MAEDA

- Related to Patch #35721: Unlink files after they're closed added

#6 - 2021-08-08 03:52 - Go MAEDA

- Status changed from Closed to Reopened

Reopening this issue in order to handle [#35720](#) and [#35721](#).

#7 - 2021-08-18 04:51 - Go MAEDA

- Status changed from Reopened to Closed

Go MAEDA wrote:

> Reopening this issue in order to handle [#35720](#) and [#35721](#).

Committed the fixes in [r21193](#) and [r21194](#).

#8 - 2022-03-27 04:57 - Go MAEDA

- Tracker changed from Patch to Defect

Files

0001-ensure-unique-attachment-filenames.patch	4.78 KB	2021-07-07	Jens Krämer