

Redmine - Feature #31553

Preview .webm as video instead of audio

2019-06-11 12:38 - Martin von Wittich

Status:	Closed	Start date:	
Priority:	Normal	Due date:	
Assignee:	Go MAEDA	% Done:	0%
Category:	Attachments	Estimated time:	0.00 hour
Target version:	4.1.0		
Resolution:	Fixed		

Description

When I attach a WebM video to a Redmine ticket, Redmine's ticket preview uses an <audio> tag instead of a <video> tag to display the video. This is unfortunate because it essentially renders the video preview unusable; the <audio> tag will only play the audio part of the video. Users currently have to download WebM videos to view them.

I've looked into the code and determined that Redmine uses the MiniMime library to determine an attachment's MIME type by looking at the extension, and [MiniMime does indeed map webm to audio/webm](#). Of course, this isn't necessarily wrong as WebM is just a container format that can contain audio and/or video, so it's IMO not a MiniMime bug.

I would suggest to overwrite the webm mapping in Redmine with video/webm and always preview WebM files with a <video> tag, regardless whether it contains audio or video. This will waste a bit space when previewing audio files as browsers will display an empty area for the non-existent video part, but it's probably far easier than actually detecting whether the WebM file contains a video stream or not.

I've attached a short WebM video to illustrate the problem.

```
redmine.iserv.eu /var/www/redmine # sudo -u www-data ruby bin/about
```

```
sh: 1: svn: not found
```

```
sh: 1: cvs: not found
```

```
sh: 1: bzip2: not found
```

Environment:

```
Redmine version      4.0.3.stable
Ruby version         2.3.3-p222 (2016-11-21) [x86_64-linux-gnu]
Rails version        5.2.2.1
Environment          production
Database adapter     PostgreSQL
Mailer queue         ActiveJob::QueueAdapters::AsyncAdapter
Mailer delivery      sendmail
```

SCM:

```
Mercurial            4.0
Git                  2.11.0
```

Filesystem

Redmine plugins:

```
redmine_agile        1.4.10
redmine_checklists   3.1.15
redmine_custom_css   0.1.7
redmine_local_avatars 1.0.3
redmine_revision_branches 0.3.2
redmineup_tags       2.0.5
```

Associated revisions

Revision 18261 - 2019-06-19 17:41 - Go MAEDA

Preview .webm as video instead of audio (#31553).

Patch by Seiei Miyagi.

History

#1 - 2019-06-11 12:47 - Martin von Wittich

- File *Download.png* added

OK, uploading that attachment to illustrate the issue didn't have the intended effect because redmine.org won't preview the attachment. Is redmine.org still running an older Redmine version...?

I've attached a screenshot how the attachment preview looks in our Redmine (using the Circle theme).

#2 - 2019-06-11 14:18 - Bernhard Rohloff

- Status changed from *New* to *Confirmed*

I can confirm the behavior and would also prefer to have a preview for video files instead of an audio player. I think it's more common for people to attach videos to their tickets.

Martin von Wittich wrote:

| *...Is redmine.org still running an older Redmine version...?*

Yes redmine.org runs a version which is far older than the latest release.

#3 - 2019-06-11 17:16 - Seiei Miyagi

- File *0001-Preview-.webm-as-video-instead-of-audio.patch* added

#4 - 2019-06-12 04:44 - Go MAEDA

- Target version set to *Candidate for next minor release*

#5 - 2019-06-13 10:21 - Go MAEDA

- File *firefox-error.png* added

After applying the patch, Firefox shows the following error instead of a video. The Japanese text in the screenshot says "No video with supported format and mime type found".

firefox-error.png

#6 - 2019-06-13 17:29 - Martin von Wittich

Go MAEDA wrote:

After applying the patch, Firefox shows the following error instead of a video. The Japanese text in the screenshot says "No video with supported format and mime type found".

Oops... I thought I had tested my WebM file both in Firefox and in Chrome, but you're right, I can reproduce the issue in Firefox. Sorry for that, I should've probably taken more care to choose an example file that works :)

I had created this file with the Chrome extension [Screencastify](#). According to ffmpeg, it's encoded with h264:

```
Input #0, matroska,webm, from 'Example Domain.webm':
```

```
Metadata:
```

```
encoder      : w69b-mediawriter
```

```
Duration: 00:00:01.85, start: 0.000000, bitrate: 154 kb/s
```

```
Stream #0:0(eng): Video: h264 (Constrained Baseline), yuv420p(progressive), 746x720, SAR 1:1 DAR 373:360, 1k tbr, 1k tbn, 2k tbc (default)
```

But apparently, h264 isn't even an allowed video codec for the WebM container format, so Firefox isn't in the wrong here. Maybe the demo files provided by webmfiles.org are more suitable? <https://www.webmfiles.org/demo-files/>

I've attached <http://dl5.webmfiles.org/elephants-dream.webm> to a test ticket in our production Redmine and manually changed the <audio> tag to a <video> tag (I don't have a dev instance ready so I can't test the patch properly), and that one seems to work fine in Firefox and in Chrome.

#7 - 2019-06-19 09:02 - Go MAEDA

- Target version changed from Candidate for next minor release to 4.1.0

Setting the target version to 4.1.0.

#8 - 2019-06-19 09:21 - Bernhard Rohloff

I've attached the patch to my dev environment and it works flawlessly with my test video made by a screen recorder. Very nice improvement!

#9 - 2019-06-19 17:43 - Go MAEDA

- Subject changed from Attachment preview plays WebM video with <audio> instead of <video> to Preview .webm as video instead of audio

- Status changed from Confirmed to Closed

- Assignee set to Go MAEDA

- Resolution set to Fixed

Committed the patch. Thank you all for working on this issue.

#10 - 2019-06-19 17:44 - Go MAEDA

- Tracker changed from Defect to Feature

#11 - 2019-07-01 12:09 - Martin von Wittich

Thanks for the fix!

Unfortunately a colleague just noticed that *.wmv is also affected; [mini_mime maps it to audio/x-ms-wmv instead of video/x-ms-wmv](#):

```
wmv      audio/x-ms-wmv      base64
```

This time it seems more like a bug in mini_mime to me; after all, the V in WMV stands for video. The upstream MIME database that mini_mime is based on [maps wmv both to audio/x-ms-wmv and video/x-ms-wmv](#), but mini_mime apparently only takes the first match and ignores the other one.

Should I file a separate Redmine issue for WMV, or should I file against mini_mime?

EDIT: I'm wondering whether mini_mime is still the right tool for the job, now that we've found multiple cases where its simplistic mapping of extensions to a single MIME type has proven problematic. How about using [MIME::Types](#) instead? It returns all MIME types for a given extension, and this makes it pretty easy to tell if a certain extension is capable of containing video or not:

```
irb(main):022:0> MIME::Types.type_for('test.wmv')
=> [#<MIME::Type: audio/x-ms-wmv>, #<MIME::Type: video/x-ms-wmv>]
irb(main):023:0> MIME::Types.type_for('test.webm')
=> [#<MIME::Type: audio/webm>, #<MIME::Type: video/webm>]
irb(main):027:0> MIME::Types.type_for('test.mp3')
=> [#<MIME::Type: audio/mpeg>]

irb(main):024:0> MIME::Types.type_for('test.wmv').find { |m| m.media_type == 'video' }
=> #<MIME::Type: video/x-ms-wmv>
irb(main):025:0> MIME::Types.type_for('test.webm').find { |m| m.media_type == 'video' }
=> #<MIME::Type: video/webm>
irb(main):026:0> MIME::Types.type_for('test.mp3').find { |m| m.media_type == 'video' }
=> nil
```

#12 - 2019-07-01 15:21 - Pavel Rosický

I agree that in these cases a video format should be preferred.

```
| MIME::Types instead? It returns all MIME types for a given extension, and this makes it pretty easy to tell if a certain extension is capable of containing video or not
```

you can't determine just according to an extension like webm if it contains a video or an audio because it could contain both. It's a matter of preference.

the main reason why redmine switched from mime-types were memory savings <https://github.com/mime-types/ruby-mime-types/issues/123>
mini_mime shares the same db as MIME::Types but it assumes only one return. Lookups return the highest priority, nonobsolete, registered match.

Martin von Wittich could you open an issue on https://github.com/discourse/mini_mime/issues and link this ticket? thanks

#13 - 2019-07-01 16:28 - Martin von Wittich

Pavel Rosický wrote:

MIME::Types instead? It returns all MIME types for a given extension, and this makes it pretty easy to tell if a certain extension is capable of containing video or not

you can't determine just according to an extension like webm if it contains a video or an audio because it could contain both. It's a matter of preference.

Well, yes, but that's pretty much exactly what Redmine is trying to do here. It's true that you can only properly tell whether a given file contains a video stream if you actually look into the file, but for Redmine's purposes, just knowing whether a given file format could theoretically contain a video stream would be enough.

the main reason why redmine switched from mime-types were memory savings <https://github.com/mime-types/ruby-mime-types/issues/123>

OK, didn't know about that.

mini_mime shares the same db as MIME::Types but it assumes only one return. Lookups return the highest priority, nonobsolete, registered match.

Unfortunately, this very concept of mini_mime seems fundamentally broken to me. mini_mime assumes that MIME::Types' [priority_compare](#) will return the most fitting MIME type for a certain extension, ordered by some kind of priority - but there is no concept of priority in MIME::Types@_priority_compare essentially just runs simplified on the MIME types and then compares them alphabetically. This means that audio will always win over video:

```
irb(main):005:0> MIME::Types.type_for('test.wmv').each { |m| pp m.simplified }; nil
"audio/x-ms-wmv"
"video/x-ms-wmv"
=> nil
```

So the MIME types returned by mini_mime are not the most fitting ones, as one would expect, but essentially those who come first in the alphabet. If there were such a thing as priorities in MIME::Types, this could work, but at the moment, I believe that mini_mime needs to be adapted so that it can return multiple MIME types. This would enable Redmine to properly determine whether a given file extension could in theory contain a video stream.

Martin von Wittich could you open an issue on https://github.com/discourse/mini_mime/issues and link this ticket? thanks

Done: https://github.com/discourse/mini_mime/issues/26

Files

Example Domain.webm	34.8 KB	2019-06-11	Martin von Wittich
Download.png	64.5 KB	2019-06-11	Martin von Wittich
0001-Preview-.webm-as-video-instead-of-audio.patch	698 Bytes	2019-06-11	Seiei Miyagi
firefox-error.png	8.11 KB	2019-06-13	Go MAEDA