# darktable - Bug #8905

## Auto exposure messes up preview / histrogram

09/03/2012 05:30 PM - Jesper Pedersen

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|---|---|---|---|---|
| **Status:** | Fixed | | **Start date:** | 09/03/2012 |
| **Priority:** | Medium | | **Due date:** | |
| **Assignee:** | Ulrich Pegelow | | **% Done:** | 100% |
| **Category:** | Darkroom | | **Estimated time:** | 0.00 hour |
| **Target version:** | Candidate for next major release | | | |
| **Affected Version:** | 1.0.5 | | **bitness:** | 64-bit |
| **System:** | | | **hardware architecture:** | amd64/x86 |

**Description**

1. Enable Exposure module
2. Enable Auto

The preview of the image (top-left corner) turns white, and the histrogram (top-right corner) gets messed up values.

Adjust the Exposure slider and the preview / histrogram turns normal again.

darktable 1.0.5+12~g3c330a7 (latest stable branch)

## Associated revisions

**Revision 0f63fb41 - 09/14/2012 06:11 PM - Ulrich Pegelow**

partial fix for bug #8905

still to be solved: preview window and histogram are lagging behind
center view when autoexposure area is changed

**Revision 8b480ee3 - 09/14/2012 09:20 PM - Ulrich Pegelow**

Revert "partial fix for bug #8905"

This reverts commit 0f63fb419ae19a9a80e69d4f97bd89cd4463d36c.

Was a bad idea that would lead to instable UI

**Revision 8a771740 - 09/15/2012 06:46 PM - Ulrich Pegelow**

partial fix for bug #8905 (hopefully better than the last try)

still to be solved: preview window and histogram are lagging behind
center view when autoexposure area is changed

## History

**#1 - 09/04/2012 06:49 PM - Jesper Pedersen**

For a .CR2 file which was deemed underexposed (~0.3EV)

**#2 - 09/12/2012 04:28 PM - Ulrich Pegelow**

*- Assignee set to Ulrich Pegelow*

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

*- % Done changed from 0 to 10*

*- Status changed from New to Confirmed*


Confirmed. Also affects current master.

Reason seems to be a wrong interpretation of the rectangular selection window on which auto exposure relies.


**#3 - 09/13/2012 06:45 PM - Ulrich Pegelow**

Unfortunately the underlying problem is more complicated than thought.

It seems to be linked to the inner synchronization between center view, preview and color picker.
I hope that someone with a deep understanding of that synchronization can help (maybe hanatos, if he
finds some time)

This is what happens, when autoexposure is pressed:

- the module is flagged that it wants to collect color picker data (color picker
data are collected from the preview window)

- at first no data is valid (all are zero)

- module exposure takes these values and translates them into a very high positive EV correction

- shortly the image gets white (high positive EV)

- as the image is reprocessed due to change of EV value, also color picker data are resampled and valid now

- valid (changed) color picker data are seen by module exposure and cause reprocessing, now with reasonable results

- center view is adjusted accordingly

- for some reason, unknown to me, preview window and thus histogram lags behind, it still shows the previous white
picture with wrong EV compensation; this lagging behind also happens frequently when you manually change the rectangular
selection and seems to be a general problem with synchronization between the two


**#4 - 09/13/2012 07:42 PM - Jesper Pedersen**

Thanks for the update, Ulrich !

**#5 - 09/14/2012 06:16 PM - Ulrich Pegelow**

*- Priority changed from High to Medium*

*- Status changed from Confirmed to In Progress*

*- % Done changed from 10 to 50*

I just pushed a partial fix into git master.

At least at first activation of autoexposure the preview window and histogram are now
correctly displayed. Still, due to the lagging behind of preview window, differences
will arise if color picker selection area is changed. Intermediate remedy: when selecting
a new rectangular area wait some moment before releasing mouse button.

**#6 - 09/14/2012 06:21 PM - Ulrich Pegelow**

*- Status changed from In Progress to Fixed*

*- % Done changed from 50 to 100*

Applied in changeset darktable|commit:0f63fb419ae19a9a80e69d4f97bd89cd4463d36c.

**#7 - 09/14/2012 06:38 PM - Ulrich Pegelow**

*- % Done changed from 100 to 50*

*- Status changed from Fixed to In Progress*

**#8 - 09/14/2012 09:27 PM - Ulrich Pegelow**

Last fix didn't work. Would lead to an instable reaction of UI.

So we are back to the beginning .(

**#9 - 09/14/2012 09:42 PM - Ulrich Pegelow**

*- % Done changed from 50 to 100*

*- Status changed from In Progress to Fixed*

Applied in changeset darktable|commit:8b480ee38447c4711beda405d4d96b2f7eac959d.