

Issue #14743:

logitlocator misses tick at edge of axis

Potential source of the bug:

This bug that we wanted to look at is the follow-up issue (logitlocator misses tick at edge of axis). The tick locating and formatting is supported in `/lib/matplotlib/ticker.py`. So that's most likely where the bug is coming from. In `ticker.py`, there is `LogitLocator` class which is locator for logit scaling. Since the bug only happens with logit scaling, the bug should be from this class. Looking through the methods of `LogitLocator` class, I found 2 classes that has something to do with the max and min value of tick. They are `tick_values` and `nonsingular`.

According to the documentation:

`tick_values(self, vmin, vmax)`

Return the values of the located ticks given `vmin` and `vmax`.

`nonsingular(self, vmin, vmax)`

Expand a range as needed to avoid singularities.

The bug is very likely in the `nonsingular` function because it expands the range.

Impact on other parts of the system:

Other than the "too many ticks" issue that's closely related to this issue, we don't think this bug will impact other parts of the system because the tick of logit scaling is just a relatively small and isolated part in the system.

Work estimates:

Software Design: 5 hours

At the end of this stage, we've already analyzed the bug and have a understanding of the impact of the bug. The team will have a lead as to approximately where the bug is located and get a general idea of how to approach the fix to the bug. This stage would take about 5 hours.

Justification for dismissing Issue #14743:

As mentioned in the Requirements Definition Phase, this issue actually contains an original bug and a related bug which are supposed to have been fixed and one follow-up bug not yet fixed. However, we found that in the master branch the behavior does not look like the bugs are fixed. We are not sure what happened with the other developer's pull request. Since the complexity of the situation and the fact that there are multiple bugs closely related, we think it will take a lot of time to sort everything out and implement the fixes for the bugs. So, we decided not to work on this issue for this deliverable.