# Contributing to libphonenumber

Thanks for contributing to libphonenumber!

Please read the following before filing an issue or sending a pull request.

We hope these guidelines will enhance your experience as a contributor to our

library and know that we appreciate the time you put into making it better.

## Checklist before filing an issue

Please check the following:

\* Is the issue reproducible using the

[demo](http://libphonenumber.appspot.com/)? If not:

\* Your issue may be resolved by upgrading to the latest version of the

library. (Reach out to the product/app team if you're not the developer!)

\* If you are using a

[port](http://github.com/google/libphonenumber#third-party-ports),

issues should be reported against that project.

\* If you are using the library through a front-end or wrapper, issues

should be reported against that project.

\* Has the issue already been discussed in the

[issues](http://issuetracker.google.com/issues/new?component=192347) or [discussion

group](https://groups.google.com/group/libphonenumber-discuss)? If so, you

may want to comment on an existing discussion.

## Filing a metadata issue

Please copy this template into your report and answer the questions to the best of your ability.

For acceptable evidence, [see below](#provide-supporting-evidence).

``` nomarkdown

\* Country:

\* Example number(s) and/or range(s):

\* Number type ("fixed-line", "mobile", "short code", etc.):

\* For short codes, cost and dialing restrictions:

\* Where or whom did you get the number(s) from:

\* Authoritative evidence (e.g. national numbering plan, operator announcement):

\* Link from demo (http://libphonenumber.appspot.com) showing error:

```

As of March 2018, we kindly request that you use Google's [Issue Tracker](http://issuetracker.google.com/issues/new?component=192347)

to report issues with the library. Using Issue Tracker will enable to us to

get back to you more efficiently as we align GitHub user issues with ones

reported at Google. Note that we transitioned active GitHub issues to Issue Tracker,

but anything inactive for over a year must be filed again. To check if your issue

was transitioned, see this [list of issues](https://issuetracker.google.com/hotlists/886952).

Alternatively, if you have a particular issue with a Google product handling phone numbers (e.g. signup),

you may also use the [Google Product Forums](https://productforums.google.com/forum).

### Provide authoritative evidence

Ideally, change requests for ranges should be accompanied by authoritative

evidence such as official government or public carrier documents.

If the evidence is publicly available online, please provide the link.

If the evidence is not publicly available online, make sure that you have the

rights to share this with us, and confirm this by reading and signing the

appropriate Contributor License Agreement (CLA). Then we can accept this

on GitHub, or we can invite you to a private Google Group archive if you

prefer not to share on GitHub.

See https://cla.developers.google.com/about to determine whether you need to

sign a Corporate or Individual CLA.

\*\*By signing the CLA, you confirm that you have the rights to share the

information with us, and that we may use, modify, reproduce, publicly display,

and distribute the information in accordance with the library's [open source

license](http://github.com/google/libphonenumber/blob/master/LICENSE).\*\*

\* [Corporate CLA](http://developers.google.com/open-source/cla/corporate?csw=1):

\* See https://cla.developers.google.com/about and follow the instructions.

\* Once you are all set up, either create a validation issue for your

request, or go to the relevant open issue.

\* Comment on the issue, using the email that's already set up for

your Corporate CLA, with "I signed the CLA."

\* If you're set up correctly, someone from the team will update you on the

issue, with instructions for sending private documentation to our closed

mailing list. Only the core libphonenumber team has access to view

emails sent to this address.

\* [Individual CLA](http://cla.developers.google.com/about/google-individual?csw=1):

\* See https://cla.developers.google.com/about to ensure that an Individual

CLA is what you need to sign, and for help with troubleshooting.

\* When signing the Individual CLA, use the same email you used

(or will use) to file the corresponding issue, so that we may check

and you don't have to post your correct email in public.

\* Once you are all set up, either create a validation issue for your

request, or go to the relevant open issue.

\* If you're set up correctly, someone from the team will update you on the

issue, with instructions for sending private documentation to our closed

mailing list. Only the core libphonenumber team has access to view

emails sent to this address.

## Pull requests

We do not accept pull requests for validation, formatting, or timezone metadata

updates.

For changes specific to windows builds, see [Filing a code

issue](#filing-a-code-issue) and make sure you have found a reviewer and tester

before sending the pull request. If the issue wasn’t reproducible and seems to be

specific to your build/setup, please prefer [creating a code bug](#filing-a-code-issue) or email the

[discussion group](https://groups.google.com/group/libphonenumber-discuss) than creating a pull request.

We are happy to review and accept pull requests for the following:

\* Carrier updates

\* Geocoding updates

\* Bug fixes

\* Documentation and code hygiene cleanups

This list is not exhaustive. To clarify whether we'd accept a pull request, and

especially before spending significant time on one such as for a bug fix, we

strongly encourage that you bring up the question on an issue.

To get your pull request merged, we need the following:

\* A CLA signature. See the previous section.

\* If the email address you use in the Individual CLA is not already

associated with that GitHub account, [add it](https://help.github.com/articles/adding-an-email-address-to-your-github-account/).

\* If you need to modify an Individual CLA signature, such as to change the

GitHub username, go to https://cla.developers.google.com/clas and click

on "Edit Contact Information".

\* Responsiveness to back and forth review comments, because we will do a code

review.

\* A link to a clear description of what the pull request intends to solve in [Issue

Tracker](http://issuetracker.google.com/issues/new?component=192347).

\* Tests that illustrate the issue, if applicable.

\* Willingness and ability to implement the changes in C++, Java, and JS if

applicable. For example, changes to `PhoneNumberUtil.java` must be ported to

`phonenumberutil.cc` and `phonenumberutil.js`.

\* The initial pull request may contain the implementation in only one

language to get approval on the approach.

If this is not possible, please file an issue instead.

## Filing a code issue

When filing a code issue, include the specifics of your operating system and

provide as much information as possible that helps us reproduce the problem.

Please be advised that metadata updates are prioritized over code changes,

except for bug fixes. In addition, we work with a limited number of build

systems and may not be able to support every setup.

In particular, we don't actively maintain windows builds but would be able to

accept a PR provided someone else in the open-source community could test it out

and would be able to help with the review. One way to look for such

collaborators would be to email the [discussion

group](https://groups.google.com/group/libphonenumber-discuss). Also see the

[known Windows issues](FAQ.md#what-about-windows).