



API guide: LoC by PR

Tags: [Flow](#)

Use this guide to learn how to find the total lines of code (LoC) for a PR. Use this data to find your average or median LoC for PRs.

Because LoC is associated with commits, which are then associated with PRs, you must use both the `commits` and `pull_requests` endpoints to find this information.

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Grab the PRs

This first API call is our main source of information for all the other API calls in this guide. The below call returns all **merged** PRs within the `START_DATE` and `END_DATE` you designate.

`https://HOSTNAME/v3/customer/core/pull_requests/?`

`closed_at_gte=START_DATE&closed_at_lte=END_DATE&fields=id,project_id,commit_shas,created_at,created_by_id,title,closed_at,state`

- **HOSTNAME:** is the IP address or URL for the Flow application. If you're using the cloud instance of Flow, this is `flow.pluralsight.com`. If you're using Flow Enterprise Server, this is something other than `flow.pluralsight.com`.
- **START_DATE/END_DATE:** Select your start and end date.

This API request gives you, by PR, the following fields grouped by PR author:

- PR ID = `id`
- Project ID = `Project id`.
- Commit Shas = associated commits shas for each PR
- Created_at = date at which the PR was created
- Created_by_id = Alias who created the PR
- PR Title = Title of PR
- Closed_at = date at which the PR was closed
- State = state of PR, this should be **merged** since that is what we are filtering for

If you want to include merged and closed PRs, remove the filter `&state=merged` and the API call will automatically include any PR that were merged or closed during your date range.

You can export this data to a .csv file by adding `&format=csv` at the end of the query.

Note: If you want to associate these PRs with their apex users in Flow, go to the next step on finding user information. Otherwise, skip to the last step of calculating the LoC for each PR.

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Grab the user information

Now you can map the `created_by_id` to the Flow apex user. Collect a comma separated list of the `created_by_id`'s from the previous step and make an API call using the `user_alias` endpoint to get user information.

`https://HOSTNAME/v3/customer/core/user_alias?id_in=YOUR_USER_ID_LIST&fields=id,name,apex_user`

- **YOUR_USER_ID_LIST:** This is the list of `created_by_ids` from the previous step. They should be in a comma separated list.

The API call returns a consolidated list of all the users with their name and `apex_user_id` which you can now map to your original list of PR `created_by_ids`.

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LoC by PR

There are two ways you can grab the commit-level data associated with your PRs. You need to do this for each of your PRs, so writing a script may be in your best interest.

Use the `commit_shas` list to find LoC

Take all the `commit_shas` associated with a PR from the first step and place them in the following API call:

```
https://HOSTNAME/v3/customer/core/commits.agg/?  
hexsha__in=YOUR_COMMIT_SHA_LIST&aggregate[sum]=haloc
```

- `YOUR_COMMIT_SHA_LIST`: A comma-separated list of commit shas for a PR from the first step.

This call aggregates the total LoC (HALOC) across all `commit_shas` used in the API call.

Your results will look something like:

```
<count>1</count>  
  
<next/><previous/>  
  
<results>  
  
<list-item>  
  
  <haloc_sum>19</haloc_sum>  
  
</list-item></results>  
  
<records>1</records>
```

`haloc_sum` is the total LoC for the PR.

Repeat this step for each PR you want to calculate LoC for, then use these numbers to find the average or median for all PRs as desired.

Use the PR id to find LoC

Use the PR id for each PR from the first step to identify associated commits and aggregate their LoC (HALOC).

To aggregate the LoC for all commits associated with a PR, use the API call:

```
https://HOSTNAME/v3/customer/core/commits.agg/?  
pull_request_id=PULL_REQUEST_ID&aggregate[sum]=haloc
```

- `PULL_REQUEST_ID`: The id for the PR from the first step.

If you want to see the LoC for each commit in the PR, use the following API call:

```
https://HOSTNAME/v3/customer/core/commits/?  
pull_request_id=PULL_REQUEST_ID&fields=hexsha,haloc,id
```

Repeat this for each PR you want to calculate LoC for, then use these numbers to find the average or median for all PRs as desired.

If you need help, please contact [Pluralsight Support](#).