## **Coding Process**

- 1. If unfamiliar with the projects, look at the user and component projects descriptions to understand why the user project might use the component. Start with their Github page (click on a project's name at the top of the timeline visualization to go to the associated Github page), if not enough use Google search.
- 2. Use timeline visualization to lookup on github the commit introducing the dependency and the first social contribution to understand how they relate.
- 3. Coding:
  - a. Look at the first global social contribution, select the matching code or create a new code if none of the existing code matches. If the reason is not obvious, look at the contributions of the developer on its base repo, then its other social contributions. Check also also how the developer relates (company, association, etc...) to the two repositories: check Github page, then LinkedIn, then Google search.
  - b. If the contributions of the developer on both repositories appear not related (and are usually low) this developer is coded as EXTERNAL CONTEXT
    - i. If the author of the first social contribution is EXTERNAL CONTEXT then consider the timeline without him and look for the first social contribution in the rest of the developers and code his contributions.
    - ii. If all developer are EXTERNAL CONTEXT then the social link is coded as EXTERNAL CONTEXT
  - c. Indicate in the *Initial Dev Contrib* column the structure of the social link by indicating for each developer if contributions are forward (F), backward (B) or an external context (EC). Indicate also the reason (it's usually redundant with the code) of the first real social contribution (eg. *F to report/solve issue* | *2EC* in this case the link to the issue can be copied in the column *Detailed Info*)
- 4. Based on the previous observations indicate if the social happened before (SbT) or after (TbS) the technical dependency introduction as well the directions of the contributions: forward only (FO), backward only (BO) or backward and forward (BF).

## Codes

- Forward Feature Request (issue/comment)
- Forward Help solve Issue (comment)
- Forward Report Problem (issue/comment)
- Forward Feature Request (pull request)
- Forward Fix Issue (pull request)
- Developer(s) created both repositories
- Backward Help solve Issue (comment/pull request)
- External Context