Affect Version Problems

1. Problem 1
   1. Name: C/L Bugs with no AV
   2. Description: A closed bug that has at least one associated git commit with the bug id in the comment and has no recorded affect versions or all the recorded affect versions have no date
   3. Detection Mechanism:

*Get List of Closed bugs using Apache API*

*Clone Git URL*

*For each bug key: search for git commits containing key*

*If (commit exists)*

*Get list of AV for key using Apache API*

*If AV == TCV == FV*

*Ignore*

*If AV list = empty*

*PROBLEM*

*Else AV list is not empty*

*If*  at least one AV in list has date

*NO PROBLEM*

*Else*

*PROBLEM*

1. Problem 2
   1. Name: C/L Bugs with First AV after Ticket Creation
   2. Description: A closed bug that has at least one associated git commit with the bug id in the comment and the first recorded AV is after the ticket creation version
   3. Example: Let Bug X have recorded AV = 3, 4, 5. Let the ticket creation version = 2 and the fix version be 6. The first AV is 3. This is greater than the ticket creation version 2,, so this is a problem because 2 should also have been recorded as AV.
   4. Detection Mechanism:

*Get List of Closed bugs using Apache API*

*Clone Git URL*

*For each bug key K:*

*D = date of last git commit containing key (found using on cloned repos:*

*git log --branches --grep=K --pretty=format:"%cd" --date=iso-strict -1)*

*DV = Index of Version associated with D*

*C= date of ticket creation found using apache api*

*CV = Index of Version associated with C*

*FAV = index of first recorded affect version*

*If (FAV == CV == FV)*

*ignore*

*Else If (CV < FAV <= DV)*

*PROBLEM*

*Else*

*NO PROBLEM*