Potential Metric Items From FPA Spreadsheet

Nick Lauerman

Abstract

Evaulation of various potential matrics, performance indicators for the Software Quality Assurance collect on the First Pass Acceptance Excel workbook. [1]

Contents

1 Introduction

The data is processed using R, Version 3.4.3 named Kite-Eating Tree. The only extension (package or library) utilized is lubridate (version 1.7.1) to provide key functionality in the processing of dates.

The data is read into R from a comma seperate value (csv) file which is derived from the spreadsheet without modification. Additional values are computed as needed.

This report is prepared in the R enviroment using a collection of packages know as Sweave that included knitr which inturn feeds the package into LaTeX 2_ε a typeseting program to produce a PDF file. LaTeX 2_ε is utilizing the folowing packages to control style and formating:

- datetime and

[1] Date Ran: Wednesday 24th January, 2018 at 10:06

- multitoc

This will only show point in time data. Or what we did this period.

2 Data and Calculations

2.1 Data

A seperate data diction will be prepared to for both the source data and and computed values stored in R.

2.2 Calculations

All calculations presented here are not implemented in R as formulas.

3 Work Yet to be Completed

3.1 Formula

Some calculations would be better implemented as formulas and which matrics those are needs to be evulated and the formulas developed.

3.2 Trending

Eventually the "System" will be updated to select the data on a for a calander month. After processing the data will be stored in a seperate file to provide the results for that month. This will allow for longr term trending of this data.

3.3 Graphs

When "trending" is implented graphs of the trend will also be added.

4 Quanity Metrics

4.1 Application supported

This is a list of all application support this period. This may differ from projects supported as some application may have multiple projects in a period.

```
 [1] "Groninger"                   "Assay File Database "
 [3] "PCN/SCN"                     "WWLIMS"
 [5] "Pulse"                       "DFCS"
 [7] "DPW"                         "QIMS"
 [9] "Abbott Transfusion Medicine" "Apollo/PHM"
[11] "AFMS"                        "SAS"
[13] "Metrics Library"             "DaVinci"
```

4.2 Number of Projects

The total number of unique projects worked on this period. This may differ from the application list becouse some application may have more than one project in a periond.

```
[1] 15
```

4.3 Number of reviews

This is the number of items reviewed, a document may be counted more than once if it is reviewed more than once.

```
[1] 66
```

4.4 Number of items reviewed

This is the number of unique items reviewed, each item is only counted once regardless of how many times it is reviewed.

Note: right now this will report low due to certian items having no way to descrimate between such as multiple executions of the same test script or results from an IIVP run on different computers within the same project.

```
[1] 57
```

4.5 Number of Projects Started

The point at which a project is started is when version 1 of the *Software Change Request* is approved.

There is an issue with this right now, it fails to count projects using the ML process as there is no SCR in that process. It is combined into the Project Plan.

```
[1] 2
```

4.6 Projects Completed

The point at which a project is considered completed is when version 1 of the *System Certification Summary* is approved.

There is an issue with this right now as it fails to count project, other than ML, that use the ML report process as there is no system certification.

```
[1] 0
```

5 Rate Metrics

5.1 Document Approval Rate

This is portion of documents that are approved upon review.

It is computed by counting the number of approvals (to include first pass) and deviding that by the total number of reviews

```
[1] 0.7575758
```

5.2 First Pass Acceptance

this is the portion of documents that are approved on the first review conducted by SQA.

It is computed by counting the number of first pass approvals and deviding by the number of reviews

```
[1] 0.5454545
```