SQA Metric Items From FPA Spreadsheet - July 2018

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Abstract

Evaulation of various potential matrics, performance indicators from the Excel workbook that Software Quality Assurance collected called First Pass Acceptance. This will only be run for the month of January 2018. [1]

Contents

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[1]Date Ran: Wednesday 1st August, 2018 at 10:43

1   Introduction

The data is processed using R[2], Version 3.5.1 named "Feather Spray". The only extension (package or library) utilized is lubridate (version 1.7.4) to provide key functionality in the processing of dates.

The data is read into R from a comma seperated value (csv) file which is derived (saved) 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 in turn feeds the package into $\mathrm{\LaTeX\,2_\varepsilon}$ a typeseting program to produce a PDF file. $\mathrm{\LaTeX\,2_\varepsilon}$ in implented in MiTEX. $\mathrm{\LaTeX\,2_\varepsilon}$ is utilizing the folowing packages to control style and formating:

- datetime and

- multitoc

This will only show a point in time summary and no trends.

2   Data and Calculations

2.1   Data

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

2.2   Calculations

All calculations presented here have not been implemented in R as formulas.

3   Work Yet to be Completed

3.1   Formula

Some calculations would be better implemented as formulas. The calculations need to be evulated and the formulas developed where needed.

3.2   Trending

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

3.2.1   Graphs

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

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[2]RStudio is utilized as an IDE

4 Quanity Metrics

4.1 Application supported

This is a list of all application support this period.

Note: Alphabatize the list

```
 [1] "Pulse"
 [2] "WWLIMS"
 [3] "PEAR"
 [4] "ADD Shop Floor Paper (SFP) Report System"
 [5] "eNovator"
 [6] "DARA Filler DHM and RU"
 [7] "EP Evaluator"
 [8] "Groninger"
 [9] "Alinity S Non-LIMS spreadsheets"
[10] "DFCS"
[11] "TrendReader"
[12] "GS Reports"
[13] "AP 24 CIP"
[14] "RSLMS"
```

4.2 Number of Projects

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

```
[1] 22
```

4.3 Number of Reviews

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

```
[1] 138
```

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: This is reporting 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] 110
```

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.

   Note: This now counts ML type projects (Metrics Library and GS Reports) using the Project Plan as the point that a project starts.

```
[1] 7
```

4.6 Projects Completed

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

   Note: now counts GS (Global Service) Reports Move to Production as the end of project.

```
[1] 5
```

4.7 Number Of Deliverables by Type

This is unique for each deliverable. It only counts each document once so a deliverable that is disapproved and then approved is only counted once.

```
            Cancellation                                CII
                       1                                  4
   Decommissioning Report               Design Documentation
                       0                                  0
      Design Verification                               ERES
                       6                                  0
                     FRS                                IDP
                       2                                  1
                    IIVP                       IIVP results
                      10                                 14
            IIVP Results                               ISSD
                       1                                  3
        Maintenance Plan                  Move to Production
                       1                                  2
                   Other                       Project Plan
                       0                                  2
           Release Notes                    Risk Assessment
                       4                                  0
Software Change Request    Software Compliance Assessment
                       8                                  3
System Certification Summary                   Test Protocol
                       5                                 11
   Test Protocol Results                        Traceability
                      26                                  2
```

```
                         URS                                URS/FRS
                           2                                      0
       User Acceptance Protocol User Acceptance Protocol results
                           0                                      0
             Validation Plan
                           2
```

4.8   Number of Deliverable by Application

This is the number of unique deliverables that each application submitted.
Itonly counts each document once, regardless of the status.

```
              Abbott Transfusion Medicine
                                        0
ADD Shop Floor Paper (SFP) Report System
                                        1
                                     AFMS
                                        0
        Alinity S Non-LIMS spreadsheets
                                        1
                 Alinity Source Verifier
                                        0
                                      AMM
                                        0
                                AP 24 CIP
                                        1
                              Apollo/PHM
                                        0
                    Assay File Database
                                        0
        BioCommand Batch Control Plus
                                        0
                                 CMSnext
                                        0
                                 CMSNext
                                        0
                   DARA Filler DHM and RU
                                        9
                                  DaVinci
                                        0
                                     DFCS
                                       11
                                      DPW
                                        0
                                     EDMS
                                        0
```

```
              eNovator
                    16
          EP Evaluator
                     5
              GDSN/GS1
                     0
             Groninger
                     5
            GS Reports
                     4
             ideaPoint
                     0
                  IRIS
                     0
  Knowledge Management
                     0
       Metrics Library
                     0
             Navigator
                     0
               PCN/SCN
                     0
                  PEAR
                     2
              Power BI
                     0
       Print on Demand
                     0
                 Pulse
                    22
                  QIMS
                     0
       Reliasoft Xfmea
                     0
                 RSLMS
                     4
                   SAS
                     0
          TestComplete
                     0
                  TODS
                     0
            TrendReader
                     6
                WWLIMS
                    23
```

4.9 Number of Approvals, Disapprovals, and First Pass Approvals

```
 A A-FP    D
29   88   21
```

4.10 Table of Deliverables by Application

	Cancellation	CII
Abbott Transfusion Medicine	0	0
ADD Shop Floor Paper (SFP) Report System	0	0
AFMS	0	0
Alinity S Non-LIMS spreadsheets	0	0
Alinity Source Verifier	0	0
AMM	0	0
AP 24 CIP	1	0
Apollo/PHM	0	0
Assay File Database	0	0
BioCommand Batch Control Plus	0	0
CMSnext	0	0
CMSNext	0	0
DARA Filler DHM and RU	0	0
DaVinci	0	0
DFCS	0	0
DPW	0	0
EDMS	0	0
eNovator	0	0
EP Evaluator	0	0
GDSN/GS1	0	0
Groninger	0	0
GS Reports	0	0
ideaPoint	0	0
IRIS	0	0
Knowledge Management	0	0
Metrics Library	0	0
Navigator	0	0
PCN/SCN	0	0
PEAR	0	0
Power BI	0	0
Print on Demand	0	0
Pulse	0	1
QIMS	0	0
Reliasoft Xfmea	0	0
RSLMS	0	0
SAS	0	0
TestComplete	0	0

TODS	0	0
TrendReader	0	0
WWLIMS	0	3

	Decommissioning Report
Abbott Transfusion Medicine	0
ADD Shop Floor Paper (SFP) Report System	0
AFMS	0
Alinity S Non-LIMS spreadsheets	0
Alinity Source Verifier	0
AMM	0
AP 24 CIP	0
Apollo/PHM	0
Assay File Database	0
BioCommand Batch Control Plus	0
CMSnext	0
CMSNext	0
DARA Filler DHM and RU	0
DaVinci	0
DFCS	0
DPW	0
EDMS	0
eNovator	0
EP Evaluator	0
GDSN/GS1	0
Groninger	0
GS Reports	0
ideaPoint	0
IRIS	0
Knowledge Management	0
Metrics Library	0
Navigator	0
PCN/SCN	0
PEAR	0
Power BI	0
Print on Demand	0
Pulse	0
QIMS	0
Reliasoft Xfmea	0
RSLMS	0
SAS	0
TestComplete	0
TODS	0
TrendReader	0
WWLIMS	0

	Design Documentation
Abbott Transfusion Medicine	0
ADD Shop Floor Paper (SFP) Report System	0
AFMS	0
Alinity S Non-LIMS spreadsheets	0
Alinity Source Verifier	0
AMM	0
AP 24 CIP	0
Apollo/PHM	0
Assay File Database	0
BioCommand Batch Control Plus	0
CMSnext	0
CMSNext	0
DARA Filler DHM and RU	0
DaVinci	0
DFCS	0
DPW	0
EDMS	0
eNovator	0
EP Evaluator	0
GDSN/GS1	0
Groninger	0
GS Reports	0
ideaPoint	0
IRIS	0
Knowledge Management	0
Metrics Library	0
Navigator	0
PCN/SCN	0
PEAR	0
Power BI	0
Print on Demand	0
Pulse	0
QIMS	0
Reliasoft Xfmea	0
RSLMS	0
SAS	0
TestComplete	0
TODS	0
TrendReader	0
WWLIMS	0

	Design Verification	ERES	FRS	IDP
Abbott Transfusion Medicine	0	0	0	0
ADD Shop Floor Paper (SFP) Report System	0	0	0	0
AFMS	0	0	0	0

Alinity S Non-LIMS spreadsheets	0	0	0	0
Alinity Source Verifier	0	0	0	0
AMM	0	0	0	0
AP 24 CIP	0	0	0	0
Apollo/PHM	0	0	0	0
Assay File Database	0	0	0	0
BioCommand Batch Control Plus	0	0	0	0
CMSnext	0	0	0	0
CMSNext	0	0	0	0
DARA Filler DHM and RU	0	0	0	0
DaVinci	0	0	0	0
DFCS	1	0	1	1
DPW	0	0	0	0
EDMS	0	0	0	0
eNovator	0	0	0	0
EP Evaluator	0	0	0	0
GDSN/GS1	0	0	0	0
Groninger	0	0	0	0
GS Reports	0	0	0	0
ideaPoint	0	0	0	0
IRIS	0	0	0	0
Knowledge Management	0	0	0	0
Metrics Library	0	0	0	0
Navigator	0	0	0	0
PCN/SCN	0	0	0	0
PEAR	0	0	0	0
Power BI	0	0	0	0
Print on Demand	0	0	0	0
Pulse	2	0	1	0
QIMS	0	0	0	0
Reliasoft Xfmea	0	0	0	0
RSLMS	1	0	0	0
SAS	0	0	0	0
TestComplete	0	0	0	0
TODS	0	0	0	0
TrendReader	0	0	0	0
WWLIMS	2	0	0	0

	IIVP	IIVP results	IIVP Results	ISSD
Abbott Transfusion Medicine	0	0	0	0
ADD Shop Floor Paper (SFP) Report System	0	1	0	0
AFMS	0	0	0	0
Alinity S Non-LIMS spreadsheets	0	0	0	0
Alinity Source Verifier	0	0	0	0
AMM	0	0	0	0
AP 24 CIP	0	0	0	0

Apollo/PHM	0	0	0	0
Assay File Database	0	0	0	0
BioCommand Batch Control Plus	0	0	0	0
CMSnext	0	0	0	0
CMSNext	0	0	0	0
DARA Filler DHM and RU	0	3	0	1
DaVinci	0	0	0	0
DFCS	0	0	0	0
DPW	0	0	0	0
EDMS	0	0	0	0
eNovator	1	0	0	1
EP Evaluator	1	0	0	0
GDSN/GS1	0	0	0	0
Groninger	0	0	1	1
GS Reports	0	0	0	0
ideaPoint	0	0	0	0
IRIS	0	0	0	0
Knowledge Management	0	0	0	0
Metrics Library	0	0	0	0
Navigator	0	0	0	0
PCN/SCN	0	0	0	0
PEAR	0	0	0	0
Power BI	0	0	0	0
Print on Demand	0	0	0	0
Pulse	1	2	0	0
QIMS	0	0	0	0
Reliasoft Xfmea	0	0	0	0
RSLMS	0	0	0	0
SAS	0	0	0	0
TestComplete	0	0	0	0
TODS	0	0	0	0
TrendReader	0	2	0	0
WWLIMS	7	6	0	0

	Maintenance Plan	Move to Production
Abbott Transfusion Medicine	0	0
ADD Shop Floor Paper (SFP) Report System	0	0
AFMS	0	0
Alinity S Non-LIMS spreadsheets	0	0
Alinity Source Verifier	0	0
AMM	0	0
AP 24 CIP	0	0
Apollo/PHM	0	0
Assay File Database	0	0
BioCommand Batch Control Plus	0	0
CMSnext	0	0

CMSNext	0	0
DARA Filler DHM and RU	0	0
DaVinci	0	0
DFCS	0	0
DPW	0	0
EDMS	0	0
eNovator	1	0
EP Evaluator	0	0
GDSN/GS1	0	0
Groninger	0	0
GS Reports	0	2
ideaPoint	0	0
IRIS	0	0
Knowledge Management	0	0
Metrics Library	0	0
Navigator	0	0
PCN/SCN	0	0
PEAR	0	0
Power BI	0	0
Print on Demand	0	0
Pulse	0	0
QIMS	0	0
Reliasoft Xfmea	0	0
RSLMS	0	0
SAS	0	0
TestComplete	0	0
TODS	0	0
TrendReader	0	0
WWLIMS	0	0

	Other	Project Plan	Release Notes
Abbott Transfusion Medicine	0	0	0
ADD Shop Floor Paper (SFP) Report System	0	0	0
AFMS	0	0	0
Alinity S Non-LIMS spreadsheets	0	0	0
Alinity Source Verifier	0	0	0
AMM	0	0	0
AP 24 CIP	0	0	0
Apollo/PHM	0	0	0
Assay File Database	0	0	0
BioCommand Batch Control Plus	0	0	0
CMSnext	0	0	0
CMSNext	0	0	0
DARA Filler DHM and RU	0	0	1
DaVinci	0	0	0
DFCS	0	0	1

DPW	0	0	0
EDMS	0	0	0
eNovator	0	0	1
EP Evaluator	0	0	0
GDSN/GS1	0	0	0
Groninger	0	0	1
GS Reports	0	2	0
ideaPoint	0	0	0
IRIS	0	0	0
Knowledge Management	0	0	0
Metrics Library	0	0	0
Navigator	0	0	0
PCN/SCN	0	0	0
PEAR	0	0	0
Power BI	0	0	0
Print on Demand	0	0	0
Pulse	0	0	0
QIMS	0	0	0
Reliasoft Xfmea	0	0	0
RSLMS	0	0	0
SAS	0	0	0
TestComplete	0	0	0
TODS	0	0	0
TrendReader	0	0	0
WWLIMS	0	0	0

	Risk Assessment
Abbott Transfusion Medicine	0
ADD Shop Floor Paper (SFP) Report System	0
AFMS	0
Alinity S Non-LIMS spreadsheets	0
Alinity Source Verifier	0
AMM	0
AP 24 CIP	0
Apollo/PHM	0
Assay File Database	0
BioCommand Batch Control Plus	0
CMSnext	0
CMSNext	0
DARA Filler DHM and RU	0
DaVinci	0
DFCS	0
DPW	0
EDMS	0
eNovator	0
EP Evaluator	0

GDSN/GS1	0
Groninger	0
GS Reports	0
ideaPoint	0
IRIS	0
Knowledge Management	0
Metrics Library	0
Navigator	0
PCN/SCN	0
PEAR	0
Power BI	0
Print on Demand	0
Pulse	0
QIMS	0
Reliasoft Xfmea	0
RSLMS	0
SAS	0
TestComplete	0
TODS	0
TrendReader	0
WWLIMS	0

	Software Change Request
Abbott Transfusion Medicine	0
ADD Shop Floor Paper (SFP) Report System	0
AFMS	0
Alinity S Non-LIMS spreadsheets	0
Alinity Source Verifier	0
AMM	0
AP 24 CIP	0
Apollo/PHM	0
Assay File Database	0
BioCommand Batch Control Plus	0
CMSnext	0
CMSNext	0
DARA Filler DHM and RU	0
DaVinci	0
DFCS	1
DPW	0
EDMS	0
eNovator	0
EP Evaluator	1
GDSN/GS1	0
Groninger	0
GS Reports	0
ideaPoint	0

IRIS	0
Knowledge Management	0
Metrics Library	0
Navigator	0
PCN/SCN	0
PEAR	1
Power BI	0
Print on Demand	0
Pulse	1
QIMS	0
Reliasoft Xfmea	0
RSLMS	2
SAS	0
TestComplete	0
TODS	0
TrendReader	0
WWLIMS	2

	Software Compliance Assessment
Abbott Transfusion Medicine	0
ADD Shop Floor Paper (SFP) Report System	0
AFMS	0
Alinity S Non-LIMS spreadsheets	0
Alinity Source Verifier	0
AMM	0
AP 24 CIP	0
Apollo/PHM	0
Assay File Database	0
BioCommand Batch Control Plus	0
CMSnext	0
CMSNext	0
DARA Filler DHM and RU	0
DaVinci	0
DFCS	0
DPW	0
EDMS	0
eNovator	0
EP Evaluator	0
GDSN/GS1	0
Groninger	0
GS Reports	0
ideaPoint	0
IRIS	0
Knowledge Management	0
Metrics Library	0
Navigator	0

```
PCN/SCN                                                               0
PEAR                                                                  1
Power BI                                                              0
Print on Demand                                                       0
Pulse                                                                 1
QIMS                                                                  0
Reliasoft Xfmea                                                       0
RSLMS                                                                 1
SAS                                                                   0
TestComplete                                                          0
TODS                                                                  0
TrendReader                                                           0
WWLIMS                                                                0


                                      System Certification Summary
Abbott Transfusion Medicine                                           0
ADD Shop Floor Paper (SFP) Report System                              0
AFMS                                                                  0
Alinity S Non-LIMS spreadsheets                                       0
Alinity Source Verifier                                               0
AMM                                                                   0
AP 24 CIP                                                             0
Apollo/PHM                                                            0
Assay File Database                                                   0
BioCommand Batch Control Plus                                         0
CMSnext                                                               0
CMSNext                                                               0
DARA Filler DHM and RU                                                1
DaVinci                                                               0
DFCS                                                                  1
DPW                                                                   0
EDMS                                                                  0
eNovator                                                              0
EP Evaluator                                                          0
GDSN/GS1                                                              0
Groninger                                                             1
GS Reports                                                            0
ideaPoint                                                             0
IRIS                                                                  0
Knowledge Management                                                  0
Metrics Library                                                       0
Navigator                                                             0
PCN/SCN                                                               0
PEAR                                                                  0
Power BI                                                              0
Print on Demand                                                       0
```

Pulse	1
QIMS	0
Reliasoft Xfmea	0
RSLMS	0
SAS	0
TestComplete	0
TODS	0
TrendReader	0
WWLIMS	1

	Test Protocol	Test Protocol Results
Abbott Transfusion Medicine	0	0
ADD Shop Floor Paper (SFP) Report System	0	0
AFMS	0	0
Alinity S Non-LIMS spreadsheets	1	0
Alinity Source Verifier	0	0
AMM	0	0
AP 24 CIP	0	0
Apollo/PHM	0	0
Assay File Database	0	0
BioCommand Batch Control Plus	0	0
CMSnext	0	0
CMSNext	0	0
DARA Filler DHM and RU	1	1
DaVinci	0	0
DFCS	0	2
DPW	0	0
EDMS	0	0
eNovator	3	9
EP Evaluator	1	1
GDSN/GS1	0	0
Groninger	0	1
GS Reports	0	0
ideaPoint	0	0
IRIS	0	0
Knowledge Management	0	0
Metrics Library	0	0
Navigator	0	0
PCN/SCN	0	0
PEAR	0	0
Power BI	0	0
Print on Demand	0	0
Pulse	4	8
QIMS	0	0
Reliasoft Xfmea	0	0
RSLMS	0	0

SAS	0	0
TestComplete	0	0
TODS	0	0
TrendReader	0	4
WWLIMS	1	0

	Traceability	URS	URS/FRS
Abbott Transfusion Medicine	0	0	0
ADD Shop Floor Paper (SFP) Report System	0	0	0
AFMS	0	0	0
Alinity S Non-LIMS spreadsheets	0	0	0
Alinity Source Verifier	0	0	0
AMM	0	0	0
AP 24 CIP	0	0	0
Apollo/PHM	0	0	0
Assay File Database	0	0	0
BioCommand Batch Control Plus	0	0	0
CMSnext	0	0	0
CMSNext	0	0	0
DARA Filler DHM and RU	1	0	0
DaVinci	0	0	0
DFCS	1	1	0
DPW	0	0	0
EDMS	0	0	0
eNovator	0	0	0
EP Evaluator	0	1	0
GDSN/GS1	0	0	0
Groninger	0	0	0
GS Reports	0	0	0
ideaPoint	0	0	0
IRIS	0	0	0
Knowledge Management	0	0	0
Metrics Library	0	0	0
Navigator	0	0	0
PCN/SCN	0	0	0
PEAR	0	0	0
Power BI	0	0	0
Print on Demand	0	0	0
Pulse	0	0	0
QIMS	0	0	0
Reliasoft Xfmea	0	0	0
RSLMS	0	0	0
SAS	0	0	0
TestComplete	0	0	0
TODS	0	0	0
TrendReader	0	0	0

WWLIMS	0	0	0

	User Acceptance Protocol
Abbott Transfusion Medicine	0
ADD Shop Floor Paper (SFP) Report System	0
AFMS	0
Alinity S Non-LIMS spreadsheets	0
Alinity Source Verifier	0
AMM	0
AP 24 CIP	0
Apollo/PHM	0
Assay File Database	0
BioCommand Batch Control Plus	0
CMSnext	0
CMSNext	0
DARA Filler DHM and RU	0
DaVinci	0
DFCS	0
DPW	0
EDMS	0
eNovator	0
EP Evaluator	0
GDSN/GS1	0
Groninger	0
GS Reports	0
ideaPoint	0
IRIS	0
Knowledge Management	0
Metrics Library	0
Navigator	0
PCN/SCN	0
PEAR	0
Power BI	0
Print on Demand	0
Pulse	0
QIMS	0
Reliasoft Xfmea	0
RSLMS	0
SAS	0
TestComplete	0
TODS	0
TrendReader	0
WWLIMS	0

	User Acceptance Protocol results
Abbott Transfusion Medicine	0

```
ADD Shop Floor Paper (SFP) Report System             0
AFMS                                                 0
Alinity S Non-LIMS spreadsheets                      0
Alinity Source Verifier                              0
AMM                                                  0
AP 24 CIP                                            0
Apollo/PHM                                           0
Assay File Database                                  0
BioCommand Batch Control Plus                        0
CMSnext                                              0
CMSNext                                              0
DARA Filler DHM and RU                               0
DaVinci                                              0
DFCS                                                 0
DPW                                                  0
EDMS                                                 0
eNovator                                             0
EP Evaluator                                         0
GDSN/GS1                                             0
Groninger                                            0
GS Reports                                           0
ideaPoint                                            0
IRIS                                                 0
Knowledge Management                                 0
Metrics Library                                      0
Navigator                                            0
PCN/SCN                                              0
PEAR                                                 0
Power BI                                             0
Print on Demand                                      0
Pulse                                                0
QIMS                                                 0
Reliasoft Xfmea                                      0
RSLMS                                                0
SAS                                                  0
TestComplete                                         0
TODS                                                 0
TrendReader                                          0
WWLIMS                                               0

                                     Validation Plan
Abbott Transfusion Medicine                     0
ADD Shop Floor Paper (SFP) Report System        0
AFMS                                            0
Alinity S Non-LIMS spreadsheets                 0
Alinity Source Verifier                         0
```

```
AMM                                          0
AP 24 CIP                                     0
Apollo/PHM                                    0
Assay File Database                          0
BioCommand Batch Control Plus                0
CMSnext                                       0
CMSNext                                       0
DARA Filler DHM and RU                        0
DaVinci                                       0
DFCS                                          1
DPW                                           0
EDMS                                          0
eNovator                                      0
EP Evaluator                                  0
GDSN/GS1                                      0
Groninger                                     0
GS Reports                                    0
ideaPoint                                     0
IRIS                                          0
Knowledge Management                          0
Metrics Library                               0
Navigator                                     0
PCN/SCN                                       0
PEAR                                          0
Power BI                                      0
Print on Demand                               0
Pulse                                         0
QIMS                                          0
Reliasoft Xfmea                               0
RSLMS                                         0
SAS                                           0
TestComplete                                  0
TODS                                          0
TrendReader                                   0
WWLIMS                                        1
```

4.11   Table of Rejection Reasons

Inaccurate information	Incorrect scope
13	0
Insufficient testing	Insufficient traceability
0	0
N/A	Not compliant with procedure
0	2
Not following configuration management	Not following document version control
0	0

```
                   Not using template                          Other
                             1                                   3
            Requirement deficiency
                       0
```

4.12 Defects Verses Application

```
                   Inaccurate information Incorrect scope
DARA Filler DHM and RU                  1               0
DFCS                                    2               0
eNovator                                2               0
EP Evaluator                            1               0
Groninger                               1               0
Pulse                                   3               0
RSLMS                                   2               0
WWLIMS                                  1               0


                   Insufficient testing Insufficient traceability N/A
DARA Filler DHM and RU               0                         0   0
DFCS                                 0                         0   0
eNovator                             0                         0   0
EP Evaluator                         0                         0   0
Groninger                            0                         0   0
Pulse                                0                         0   0
RSLMS                                0                         0   0
WWLIMS                               0                         0   0


                   Not compliant with procedure
DARA Filler DHM and RU                  0
DFCS                                    0
eNovator                                1
EP Evaluator                            0
Groninger                               0
Pulse                                   1
RSLMS                                   0
WWLIMS                                  0


                   Not following configuration management
DARA Filler DHM and RU                              0
DFCS                                                0
eNovator                                            0
EP Evaluator                                        0
Groninger                                           0
Pulse                                               0
RSLMS                                               0
WWLIMS                                              0
```

```
                          Not following document version control
DARA Filler DHM and RU                                         0
DFCS                                                           0
eNovator                                                       0
EP Evaluator                                                   0
Groninger                                                      0
Pulse                                                          0
RSLMS                                                          0
WWLIMS                                                         0
```

```
                          Not using template Other Requirement deficiency
DARA Filler DHM and RU                     0     0                       0
DFCS                                       1     0                       0
eNovator                                   0     0                       0
EP Evaluator                               0     2                       0
Groninger                                  0     0                       0
Pulse                                      0     0                       0
RSLMS                                      0     0                       0
WWLIMS                                     0     1                       0
```

4.13 Defects Verses Deliverable

```
> table(as.character(subset(FPA, subset = (status == "D"))$deliverable),
+       subset(FPA, subset = (status == "D"))$reason)
```

```
                               Inaccurate information Incorrect scope
Design Verification                                 2               0
IDP                                                 1               0
IIVP results                                        1               0
ISSD                                                0               0
Maintenance Plan                                    0               0
Software Change Request                             2               0
Software Compliance Assessment                      1               0
System Certification Summary                        3               0
Test Protocol                                       1               0
Test Protocol Results                               2               0
URS                                                 0               0
```

```
                               Insufficient testing Insufficient traceability
Design Verification                               0                          0
IDP                                               0                          0
IIVP results                                      0                          0
ISSD                                              0                          0
Maintenance Plan                                  0                          0
Software Change Request                           0                          0
```

Software Compliance Assessment	0	0
System Certification Summary	0	0
Test Protocol	0	0
Test Protocol Results	0	0
URS	0	0

	N/A	Not compliant with procedure
Design Verification	0	1
IDP	0	0
IIVP results	0	0
ISSD	0	0
Maintenance Plan	0	1
Software Change Request	0	0
Software Compliance Assessment	0	0
System Certification Summary	0	0
Test Protocol	0	0
Test Protocol Results	0	0
URS	0	0

	Not following configuration management
Design Verification	0
IDP	0
IIVP results	0
ISSD	0
Maintenance Plan	0
Software Change Request	0
Software Compliance Assessment	0
System Certification Summary	0
Test Protocol	0
Test Protocol Results	0
URS	0

	Not following document version control
Design Verification	0
IDP	0
IIVP results	0
ISSD	0
Maintenance Plan	0
Software Change Request	0
Software Compliance Assessment	0
System Certification Summary	0
Test Protocol	0
Test Protocol Results	0
URS	0

Not using template Other

```
Design Verification                          1      0
IDP                                          0      0
IIVP results                                 0      0
ISSD                                         0      0
Maintenance Plan                             0      0
Software Change Request                      0      1
Software Compliance Assessment               0      0
System Certification Summary                 0      0
Test Protocol                                0      0
Test Protocol Results                        0      0
URS                                          0      2


                              Requirement deficiency
Design Verification                          0
IDP                                          0
IIVP results                                 0
ISSD                                         0
Maintenance Plan                             0
Software Change Request                      0
Software Compliance Assessment               0
System Certification Summary                 0
Test Protocol                                0
Test Protocol Results                        0
URS                                          0
```

4.14   Rejection Reason by Deliverable

```
              Design Verification                            IDP
                              4                                1
                     IIVP results                           ISSD
                              1                                2
                 Maintenance Plan        Software Change Request
                              1                                3
  Software Compliance Assessment   System Certification Summary
                              1                                3
                    Test Protocol          Test Protocol Results
                              1                                2
                             URS
                              2
```

4.15   Number of Rejections by Project

```
DARA Filler DHM and RU                    DFCS                eNovator
             1                               3                       4
      EP Evaluator                     Groninger                   Pulse
             3                               2                       4
```

```
        RSLMS                 WWLIMS
          2                     2
```

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 devided that by the total number of reviews.

```
[1] 0.8478261
```

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 devided by the number of reviews.

```
[1] 0.6376812
```