Print Counter

Feature Name: Print Counter

Feature Name in Annotation: PRINTCOUNTER

Source of Information
Releaselog, pull requests, commits, ifdefs with feature annotation name

Strategy Used:
Feature is identified from the latest release log first. The release log also provides the pull request and commits linked to the feature (see the links and tables below), Ifdefs are also used for speeding up feature location..

Feature Release Version: 1.1.0 – RC7

Time took to Identify and Locate the feature: 0.7 hour
Time took to Understand the Implementation: 1.5 hour

Feature Description
This feature is used for counting the usage of the 3D printer. E.g: Total number and time of jobs, filament usage, etc.
The following statistical information can be displayed by M78 command.

```
Stats: Prints: 61, Finished: 46, Failed: 15
Stats: Total time: 2d 13h 6min, Longest job: 0d 8h 23min
Stats: Filament used: 15.19m
```

Feature Information and Statistics:

PR No.	Merged Time	PR	Commits	Files	Line Added	Line deleted
#3625	30 Apr 2016	Print job statistics	10	24	616	9
#3813	22 May 2016	Stopwatch and PrintCounter improvements	1	4	64	63
#3819	23 May 2016	Follow up for #3813	1	2	5	1
#4298	17 Jul 2016	Adds filamentUsed and longestPrint stats to PrintCounter	1	4	87	20

Ratios of sources (%)

RL	PR	CM	Ifdef	DK	CC	SC	GD
50	10	15	25	0	0	0	0

RL: Release Log; **PR:** Pull Request; **CM**: Commit, **Ifdef**: Ifdef Expression; **DK**: Domain Knowledge; **CC**: Code Comment; **SC**: Source Code; **GD**: G-Code Documentation.

Pull Request Links:
https://github.com/MarlinFirmware/Marlin/pull/3625/files
https://github.com/MarlinFirmware/Marlin/pull/3813/files
https://github.com/MarlinFirmware/Marlin/pull/3819/files
https://github.com/MarlinFirmware/Marlin/pull/4298/files

Feature Characteristics:

Feature Name	LoFC	SD	TD	Completely Wrapped by ifdef
PRINTCOUNTER	84	11	0	No

Feature's relevant historical data

Request(issue) proposed
Time: 18 Dec 2014, by: morgan-it

Related feature request:
Filament Count Feature:https://github.com/MarlinFirmware/Marlin/issues/924 (19 May 2014)

Related discussions:
https://github.com/MarlinFirmware/Marlin/issues/1193 (18 Dec 2014)
https://github.com/MarlinFirmware/Marlin/issues/4195 (3 Jul 2016)
https://github.com/MarlinFirmware/Marlin/issues/4444 (28 Jul 2016)

Bug for the feature:
https://github.com/MarlinFirmware/Marlin/pull/3908 (30 May 2016)