**Requirements management System**

1. **Introduction**
2. **Business Idea**
3. **Business requirements**
4. **Functional Requirements**
5. **Notes**
6. **Introduction**

**This document will contain requirements for creating Requirement Management System in order not to use documents for creating requirements! First will be written Business Idea, then Business Requirements and after that Functional Requirements related to the Business Requirements.**

**2 Business idea**

**Business idea is to create simple for installation, usage and maintenance requirements software tool, which will use command line interface in order to operate with requirements.**

**3 Business Requirements**

**ID 00001**

**Requirements, baselines and change request will be organized in Projects**

**Each Requirement will have the following attributes:**

**\* ID**

**\* Revision**

**\* Modification date**

**\* Author**

**\* Description**

**\* validation method**

**\* Origins**

**\* Status**

**\* Change in each revision**

**\* baseline**

**\* source file**

**\* Test Case ID**

**ID 00002**

**There will be options for:**

**- searching of requirements with/without TCs**

**- search requirements by status**

**- update requirements**

**- drop requirements**

**- add requirements**

**- Impact Analysis**

**ID 00003**

**Requirements will be stored in DB.**

**ID 00004**

**There should be search by key word with escape words**

**ID 00005 Requirements should be defined in baselines, which should be reviewed and approved**

**ID 00006 Each Baseline should have:**

**- set of requirements**

**- Status**

**- set of issues**

**- version**

**ID 00007 Requirements change process will be defined and easy - change management will be added**

**ID 00008 Each change should have**

**- ID**

**- Affected Requirements (if such)**

**- status**

**- List of added requirements**

**- Issue list**

**- Time to resolve**

**- set of baselines**

**ID 00009 Requirements Management system will use Console User Interface**

**4 Functional Requirements**

**ID 10001 Rev 0 Origin ID 00001 Status Proposed**

**Date 28.03.2018 author: BBlagiev**

**Description: Each requirement should be related to a specific Project.**

**ID 10002 Rev 0 Origin ID 00001 Status Proposed**

**Date 29.03.2018 author: BBlagiev**

**Description: Project will have a DB table**

**ID 10003 Rev 0 Origin ID 00001 Status Proposed**

**Date 29.03.2018 author: BBlagiev**

**Description: Project will have a have a list of baselines**

**ID 10004 Rev 0 Origin ID 00001 Status Proposed**

**Date 29.03.2018 author: BBlagiev**

**Description: Project will have an unique name**

**ID 10005 Rev 0 Origin ID 00001 Status Proposed**

**Date 29.03.2018 author: BBlagiev**

**Description: Project will have a list of requirements. ID of the requirement should be unique**

**ID 10006 Rev 0 Origin ID 00001 Status Proposed**

**Date 02.04.2018 author: BBlagiev**

**Description: Revision should be positive number.**

**ID 10007 Rev 0 Origin ID 00001 Status Proposed**

**Date 02.04.2018 author: BBlagiev**

**Description: Revision should be updated when any of the requirement attributes is updated.**

**ID 10008 Rev 0 Origin ID 00001 Status Proposed**

**Date 02.04.2018 author: BBlagiev**

**Description: Each requirements revisions with all attributes should be stored in DB and accessible when needed**

**ID 10009 Rev 0 Origin ID 00001 Status Proposed**

**Date 02.04.2018 author: BBlagiev**

**Description: When requirement is updated the Modification date should be updated too - this is made in order to quickly find recently updated requirements or requirements, based on date of a baseline.**

**ID 10010 Rev 0 Origin ID 00001 Status Proposed**

**Date 02.04.2018 author: BBlagiev**

**Description: Author of the requirement should be the last user that updated the requirement.**

**ID 10011 Rev 0 Origin ID 00001 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: All Requirements should have description!**

**NOTE: Description also should include links to attached files.**

**ID 10012 Rev 0 Origin ID 00001 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: There should be option to preview attachments from description(text and pictures)**

**ID 10013 Rev 0 Origin ID 00001 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: Requirements should have validation method:**

**- software code review**

**- validation test case**

**ID 10014 Rev 0 Origin ID 00001 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: Origin of the requirements should be listed - either Business requirements or change requests.**

**ID 10015 Rev 0 Origin ID 00001 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: Origin of the requirements should be listed - either Business requirements or Change requests.**

**ID 10016 Rev 0 Origin ID 00001 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: Requirements should have one of the following statuses:**

**- Proposed**

**- Accepted**

**- Deferred**

**- Dropped**

**ID 10017 Rev 0 Origin ID 00001 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: All changes in each revision after initial (Rev 0) should be listed with the following table:**

**Added: ......**

**Removed: ......**

**Edited: .......**

**ID 10018 Rev 0 Origin ID 00001 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: Each requirement which is in Accepted or Proposed state with Rev different than 0 should have baseline ID**

**ID 10019 Rev 0 Origin ID 00001 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: Each Requirement should have listed source files where it is implemented. In source files it is recommended to be a comment with ID of the requirements for easy traceability.**

**ID 10020 Rev 0 Origin ID 00001 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: Each Requirement should have listed Test Case ID or N/A if it should not be tested with TC**

**ID 10021 Rev 0 Origin ID 00001 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: If Test Case or source file is not listed, than it should be added TBD**

**ID 10022 Rev 0 Origin ID 00002 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: Requirements should be searched by particular TC ID - all requirements with TC ID the same as in the search string should be listed.**

**ID 10023 Rev 0 Origin ID 00002 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: Requirements should be searched also on criteria of there is TC or No - both scenarios - all requirements with N/A TCs and TBD TCs**

**ID 10024 Rev 0 Origin ID 00002 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: If no requirement is found despite of the search conditions, it will be printed that search condition did not returned any requirements.**

**ID 10025 Rev 0 Origin ID 00002 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: There should be an option to find requirements with particular status. Requirements should be sorted by ID!**

**ID 10026 Rev 0 Origin ID 00002 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: There should be an option to find all updated requirements in current baseline - with status Proposed and Rev > 0**

**ID 10027 Rev 0 Origin ID 00002 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: There should be an option to find all new requirements in current baseline - with status Proposed and Rev 0**

**ID 10028 Rev 0 Origin ID 00002 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: There should be an option to find all dropped requirements in current baseline.**

**ID 10029 Rev 0 Origin ID 00002 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: There should be an option to find all dropped requirements in all baselines**

**ID 10030 Rev 0 Origin ID 00002 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: There should be impact analysis field - to list all requirements that will be related when requirement is changed**

**ID 10031 Rev 0 Origin ID 00002 Status Proposed**

**Date 10.04.2018 author: BBlagiev**

**Description: Impact analysis should return all requirements affected in % and all files affected.**

**ID 10032 Rev 0 Origin ID 00003 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: Requirements will be stored in DB**

**ID 10033 Rev 0 Origin ID 00003 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: each change of requirement will be updated in DB too**

**ID 10034 Rev 0 Origin ID 00003 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: Released requirements will be stored in separate table for backup.**

**ID 10035 Rev 0 Origin ID 00003 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: All proposed requirements will be stored in particular table where updates in current baseline are stored.**

**ID 10036 Rev 0 Origin ID 00003 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: After every update tables should be updated**

**ID 10037 Rev 0 Origin ID 00004 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: Requirements should be searched by keywords**

**ID 10038 Rev 0 Origin ID 00004 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: Escape words will be automatically updated on a command. Criteria will be when a word is found in more than 50 % of the requirements, when requirements are more than 50.**

**ID 10039 Rev 0 Origin ID 00004 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: Search will return both business requirements and normal requirements.**

**ID 10040 Rev 0 Origin ID 00004 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: Search will be done with keyword search and text string that will be searched. Each word will be separated by space and will be searched with AND or OR operators and exact text!**

**ID 10044 Rev 0 Origin ID 00005 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: Baseline will have version xxx.yyy. Xxx is major number and yyy is minor number.**

**ID 10041 Rev 0 Origin ID 00005 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: When requirements are updated new baseline should be created. With increased major number. Major number is number before**

**ID 10042 Rev 0 Origin ID 00005 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: when requirements from current baseline are all with statuses Approved or Deferred or Dropped, then baseline will be released**

**ID 10043 Rev 0 Origin ID 00006 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: When requirement is added or updated new minor baseline version is made. After releasing new major version will be made with minor version equal to 000.**

**ID 10045 Rev 0 Origin ID 00006 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: Each baseline will have dynamically definable set of requirements - updated and new.**

**ID 10046 Rev 0 Origin ID 00006 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: Each baseline will have Status:**

**- New - even after one change of requirement**

**- Released - with all requirements Deferred, Dropped or Approved**

**ID 10047 Rev 0 Origin ID 00006 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: each baseline should have list of issues**

**NOTE: This requirement is optional**

**/**

**ID 10048 Rev 0 Origin ID 00007 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: When a new change is created it should arrive in Proposed status.**

**ID 10049 Rev 0 Origin ID 00007 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: If change us accepted than Its status should be Accepted**

**ID 10050 Rev 0 Origin ID 00007 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: If change is rejected, than its status should be rejected.**

**ID 10051 Rev 0 Origin ID 00007 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: When change is Approved all requirements affected and added should be written. When all of them are with status Proposed, Deferred or Accepted then the Change’s status will be Implemented.**

**ID 10052 Rev 0 Origin ID 00008 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: Change should have baseline(s) in which it is implemented.**

**ID 10053 Rev 0 Origin ID 00008 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: Each Change should have unique ID**

**ID 10054 Rev 0 Origin ID 00008 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: Each change if it is approved could have set of affected requirements**

**ID 10055 Rev 0 Origin ID 00008 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: Each change if it is approved could have list of new requirements**

**ID 10056 Rev 0 Origin ID 00008 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: Each change will have status :**

**- New**

**- Approved**

**- Rejected**

**- Implemented**

**ID 10056 Rev 0 Origin ID 00008 Status Proposed**

**Date 17.04.2018 author: BBlagiev**

**Description: Each change will have time to resolve - time between Creating of the change and entering in Rejected or Implemented state.**

**ID 10057 Rev 0 Origin ID 00001 Status Proposed**

**Date 23.04.2018 author: BBlagiev**

**Description: Each requirement, baseline and change request should have a Project.**

**ID 10058 Rev 0 Origin ID 00001 Status Proposed**

**Date 23.04.2018 author: BBlagiev**

**Description: Project will have ID, title and List of related Requirements, baselines and Change requests with all relations between them build accordingly.**

**ID 10059 Rev 0 Origin ID 00001 Status Proposed**

**Date 23.04.2018 author: BBlagiev**

**Description: Searches will be made within a single project!**

**ID 10060 Rev 0 Origin ID 00001 Status Proposed**

**Date 23.04.2018 author: BBlagiev**

**Description: No requirement or baseline or change request should be created if prject is not specified!**

**5 Notes**

**Baseline - snapshot in time of configuration - reference point of changes.**

**From** [**https://www.youtube.com/watch?v=RIHA53SWO20**](https://www.youtube.com/watch?v=RIHA53SWO20) **- Reviewed, approved and agreed-upon set of requirements to a specific product release!**

**Small baseline changes will be with version 1.1. Big baseline changes - with 2.0 etc.**

**This software should be served by single user - there will be no user management at this time.**

**Github will be used as reprository :** [**https://github.com/smoovetd/ReqMngmtSystem**](https://github.com/smoovetd/ReqMngmtSystem)

**Software will be written on NetBeans.**

Requirements Management Console interface

1. Start the program

2. Get wellcome message

3. Show menu

3.1 New Project

3.1.1 Add Name

Go to 3.2

3.2 Open Project

3.2.1 Add Requirement

3.2.2 Edit Requirement

3.2.3 Add Baseline

3.2.4 Edit baseline

3.2.5 Add Change Request

3.2.6 Edit Change Request

3.2.7 Back

3.2.8 Exit the program

3.3 Exit