Acknowledgement

A summer project is a golden opportunity for learning and self-development. I consider myself very lucky and honored to have so many wonderful people lead me through in completion of this project.

I wish to express my indebted gratitude and special thanks to "**Mr. Sameer Shaikh, Managing Director, CT Space Technologies Pvt Ltd**" who in spite of being extraordinarily busy with his duties, took time out to hear, guide and keep me on the correct path and allowed me to carry out my industrial project work at their esteemed organization and extending during the training.

A humble ‘Thank you’ Sir.

I am obliged to staff members of (**CT Space Technologies Pvt Ltd**), for the valuable information provided by them in their respective fields. I am grateful for their cooperation during the period of my Industrial Training.

I express my deepest thanks to **Mrs. Manasi Ustoorikar Shirurkar** for her guidance and support. She supported me by showing different methods of information collection about the company. She helped all the time when needed and gave the right direction towards completion of this project.

Pinak Dhananjay Wadnerkar

Index

1. 1 Company Profile

McLaren FusionLive is an online collaboration system that is designed to help and improve the process of distributing project-related information, documents and communications by storing all the information in one centralized location. It can be used at any project stage.

FusionLive allows the members of a project team to add and retrieve project-related documents quickly and easily. Additionally, there are a number of common work activities, such as Request For Information (RFIs) and Approvals, that help make project-related communications more efficient. The system is completely secure and allows for complete control over who has access to the various information stored within the workspace area.

The various features and functions within FusionLive allow users to easily participate in a project and have access to the latest version of documents. Documents are stored only once within the system, removing the need to distribute many copies of the same document.

1.2 Existing system and need for the new system

Existing system:

Our system is mainly used in Construction field. Nowadays in Construction field all the tasks are done manually by most of the companies like preparing documents, capturing work related images, sending and approving them from the contractors/ owners, sometimes it becomes difficult to communicate between themselves. These procedures are time consuming, requires more efforts and very tedious to handle all these tasks manually. Sometimes it becomes difficult to maintain the track of the workflow. So there might be cause of misconception, incompleteness, misinterpretation of the requirements. It might degrade quality of the product and increases risks factors.

Need for the new system:

As mentioned above existing system is time consuming and costly. The motivation is to facilitate the user to automate their construction related tasks.

Benefits of the new system:

- Reduces time, cost ,efforts
- Requires less manpower
- Helps to maintain relation between Constructors and Project members
- Risk reduction
- Avoid the duplication of work
- Easy to track the workflow

All these benefits can help to improve the quality of the work.

1.3 Scope of Work

- It includes full Document Management and Collaboration capabilities for single to multiple, large-scale and enterprise wide projects.
- The advanced document management and control process help ensure consistency to even the most global of projects. Start simple and add functionally on-demand to meet specific project requirements.
- It supports all project phases from feasibility studies through the bid / tendering to construction and operation and maintenance.
- It is securely hosted from server installations in the UK, USA and UAE ensuring high availability and performance.
- It has support for 13 languages and 30 documents types.

- It works in any web browser (IE, Firefox, and Google Chrome) or operating system (Windows) and doesn't require any add-ons or local software installations.
- Drag n Drop columns, tabs, resizable panels and multiple window layouts are all supported resulting in increased efficiency and user adoption.
- View and compare over 300 types of documents
- **Bulk upload:** Multiple documents can be uploaded at the same time
- **Document search:** Required documents can be search
- **Full audit trail:** Maintaining audit of the documents
- **Tender Management:**

Tender Management module enables organizations to fully automate and streamline their tender process and improve communication with bidders. It provides a secure environment in which to manage the complete tender process, from pre-qualification through to awarding of the final contract reducing cost, errors and delays. A full action and communication audit history throughout the tender lifecycle ensuring regulatory compliance.

The solution is simple enough for small bidders to participate and yet powerful enough for large organizations. Buyers are able to use the system from the initial procurement process to managing future tenders with successful suppliers.

Tender Management can be deployed either a standalone solution or integrated with FusionLive's Document Management and Collaboration application. Documents can be moved easily between the Document Management module and the Tender Management module.

- **Application Integration:**

FusionLive is an open platform supporting a set of Web Services APIs (Application Programming Interfaces) that enable integration with other software products.

1) Windows integration:

Access and browse your project documents directly from Windows Explorer, without having to open your browser.

2) **Office integration:**

Save your Word, Excel, PowerPoint documents and Outlook emails with attachments directly into FusionLive.

3) **Archiver:**

Gives the ability to download the full content of a workspace (or part of a workspace). Scheduling is possible to help keep the archive up to date. This is very convenient for companies that need to keep an internal backup of the content (for compliance) or for people who need to access content offline.

1.4 Operating Environment–Hardware and Software

To run the 'FusionLive' web application, following operational environment is needed.

Server machine configuration:

- Hardware Requirement –

1) Processor: Minimum Pentium IV
2) RAM: 4 GB Hard Disk: 320 GB or above

- Software Requirement –

1) Operating System: Windows Server 2008
2) Database: MySQL (InnoDB, MyISAM)
3) Other Software required: PHP, Apache Tomcat Server

Client machine configuration:

- Hardware Requirement –
    1) Processor: Minimum Pentium IV
    2) RAM: 512 MB
    3) Hard Disk: 80 GB or above

- Software Requirement –
    1) Operating System: Windows XP, Windows 7[32/64bit] and above.
    2) Browsers: Chrome, Mozilla Firefox, IE
    3) Other Application software: PDF Reader, Microsoft Office
    4) Internet/Intranet should be available and both the machines should be configured.

2.1 Objectives of the system

FusionLive is hosted in world class data centers around the globe to provide secure and fast access to your project information, anytime, anywhere.

- **Accessibility**: Secure access 24/7 anywhere in the world via the Internet
- **Security**:128-bit SSL encryption of all data transfers, multiple firewalls and anti-Virus protection with live updates
- **Availability:** 99% Service uptime – data hosted in several data centers by industry leaders
- **Scalability:** Deployment tested to successfully handle 8,000 concurrent users
- **Robustness**: Multi-tenant architecture
- **Performance**: User access' response time under 1 second in 90% of the cases

- **Monitoring:** All systems are monitored 24x7 and a dedicated operations team is constantly alerted to any issues that may arise

2. 2 User Requirements

- The web application will have a login screen.
- The web application will have page tabs (menus) on home page as –

1) Dashboard
2) Documents
3) Activities
4) Search
5) Reports
6) Administration

Understanding SRS (Software Requirements Specification) documentation:

The purpose of the document is to collect and analyze all assorted ideas that have come up to define the system, its requirements with respect to consumers. Also, we shall predict and sort out how we hope this product will be used in order to gain a better understanding of the project, outline concepts that may be developed later, and document ideas that are being considered, but may be discarded as the product develops.

In short, the purpose of this SRS document is to provide a detailed overview of our software product, its parameters and goals. This document describes the project's target audience and its user interface, hardware and software requirements. It defines how our client, team and audience see the product and its functionality.

2.3 Detailed description of technology used

Sahi Pro –

- Sahi is a mature, business-ready tool for automation of web application testing.
- Sahi is available as an Open Source free product and as Sahi Pro, the commercial version.
- For testing teams in product companies and captive IT units which need rapid reliable web automation, Sahi would be the best choice among web automation tools.
- Sahi is especially suited for cross-browser/multi-browser testing of complex web 2.0 applications with lots of AJAX and dynamic content.
- Sahi works well in Agile development environments, enabling rapid automation and maintenance and easily integrating with build systems.

- Sahi saves time and effort with faster development, less maintenance and fast distributed playback.
- Sahi runs on any modern browser which supports JavaScript.

Main Differentiating Features –

- Excellent recorder and object spy which works on Internet Explorer, Firefox, Chrome, Safari, Opera (and any modern browser)
- Playback on any desktop browser and even on mobile browsers
- Super simple and robust object identification mechanism which works across browsers.
  1) Sahi does not use XPaths or css selectors. It has its own wrappers around the JavaScript DOM which are simple to use and easy to maintain.
  2) Sahi works even when elements do not have ids. Sahi uses relational APIs like _in, _near, _under,

_leftOf, _rightOf etc. to uniquely identify elements.

3) Sahi automatically traverses across frames and iframes.

- Sahi automatically waits for page loads and ajax activity. There is no need for adding wait statements in 95% cases. This reduces the code base size by 50% compared to other tools and makes the scripts robust yet easily maintainable.
- Sahi does not need the browser to be in focus.
- Sahi can playback multiple scripts simultaneously reducing playback time. Sahi is the only tool in the world which can run scripts in parallel on multiple instances of Internet Explorer.
- Sahi automatically builds rich reports without adding any extra code. This keeps the script simple without any clutter.
- Sahi supports HTML5 custom tags and Shadow DOM.

Full Features List –

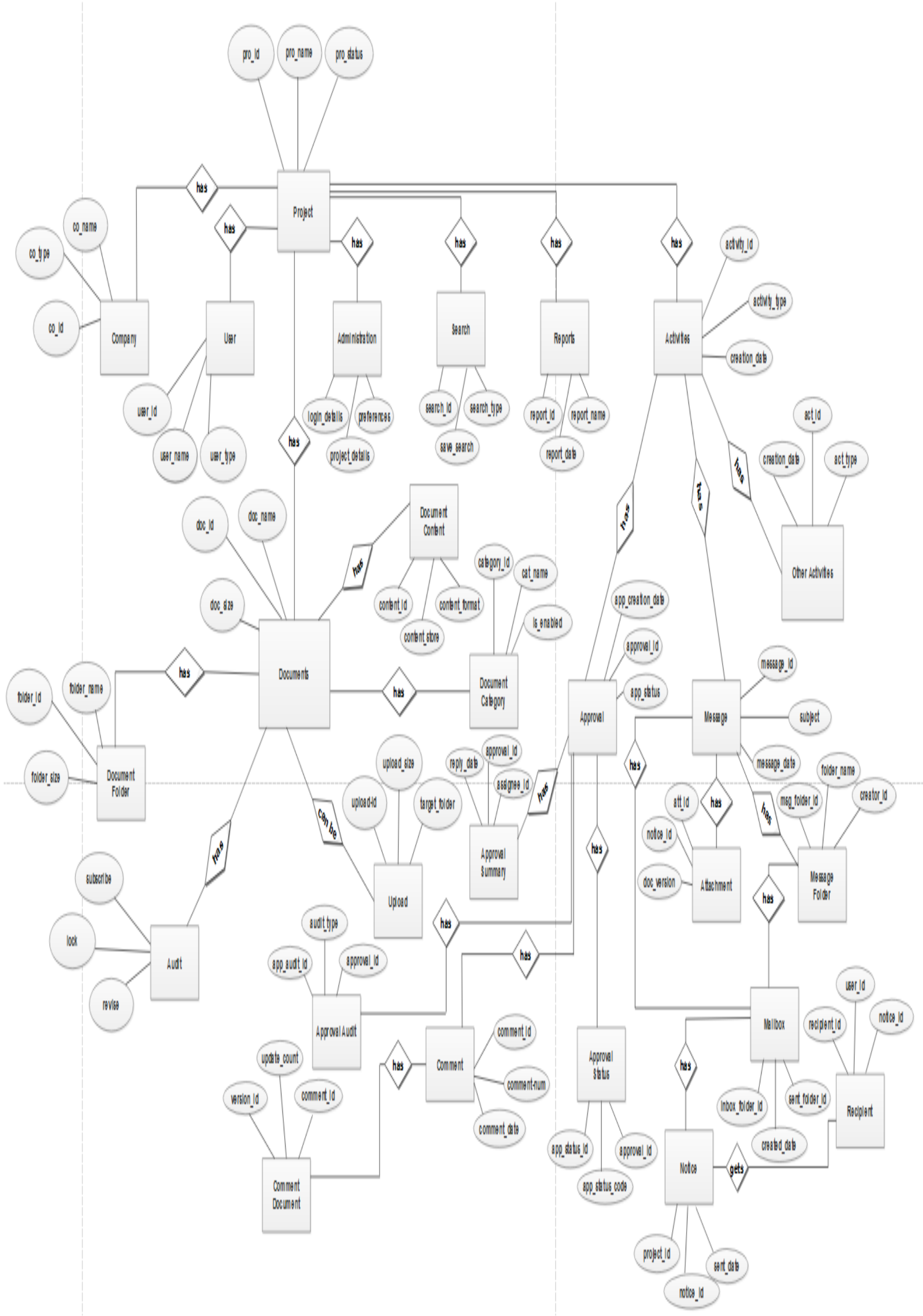
- Works on any browser which supports JavaScript and Proxy; this includes almost all desktop and mobile browsers
- Powerful recorder and Object Identifier which works across browsers
- Intuitive and simple APIs
- JavaScript based scripts for good programming control
- Version Controllable text-based scripts
- In-built reports
- In-built multithreaded or parallel playback of tests
- Scripts do not need the browser window to be in focus, making scripts very stable
- Command line and ant support for integration into build processes
- Supports external proxy, HTTPS, 401 & NTLM authentications
- Supports browser popups and modal dialogs
- Supports AJAX and highly dynamic web applications

- Scripts very robust

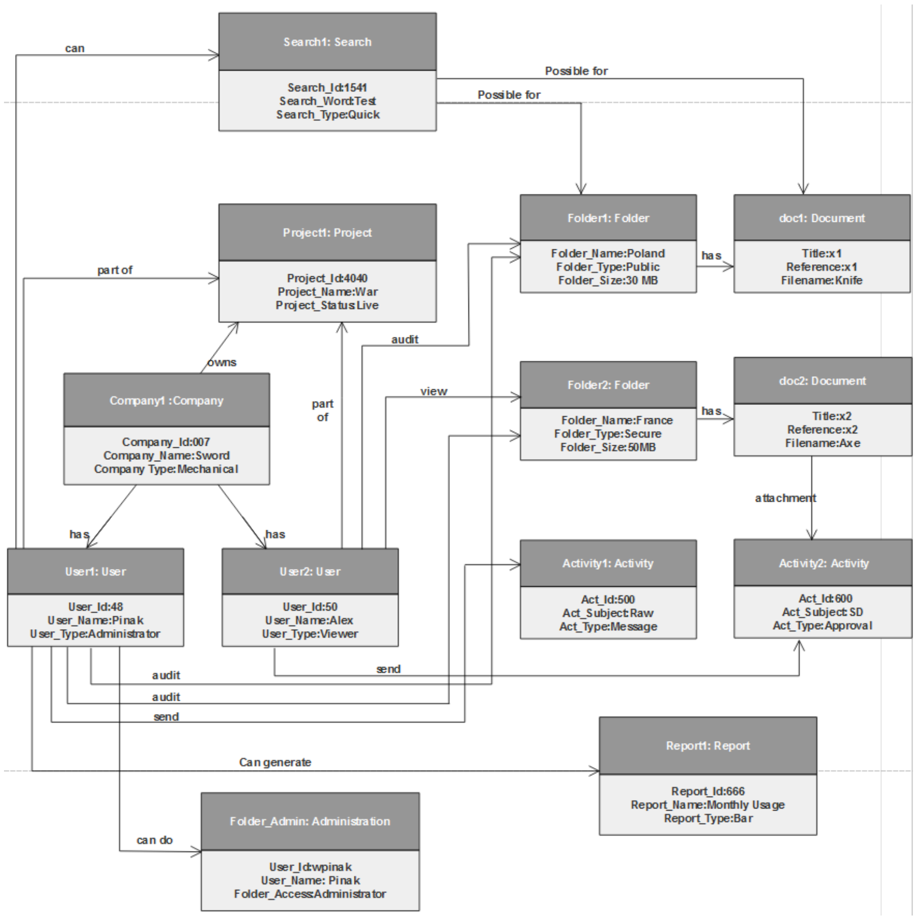
  No wait statements required even for AJAX and page loads

  Intuitive APIs like _near and _in eliminates need for XPaths
- Works on applications with random auto-generated ids
- Very lightweight and scalable
- Can directly invoke Java code from scripts. This is used to access databases, read pdf files, connect to another machine via ssh etc.
- Supports data-driven testing. Can connect to database, Excel or CSV file.
- Can call any command line program

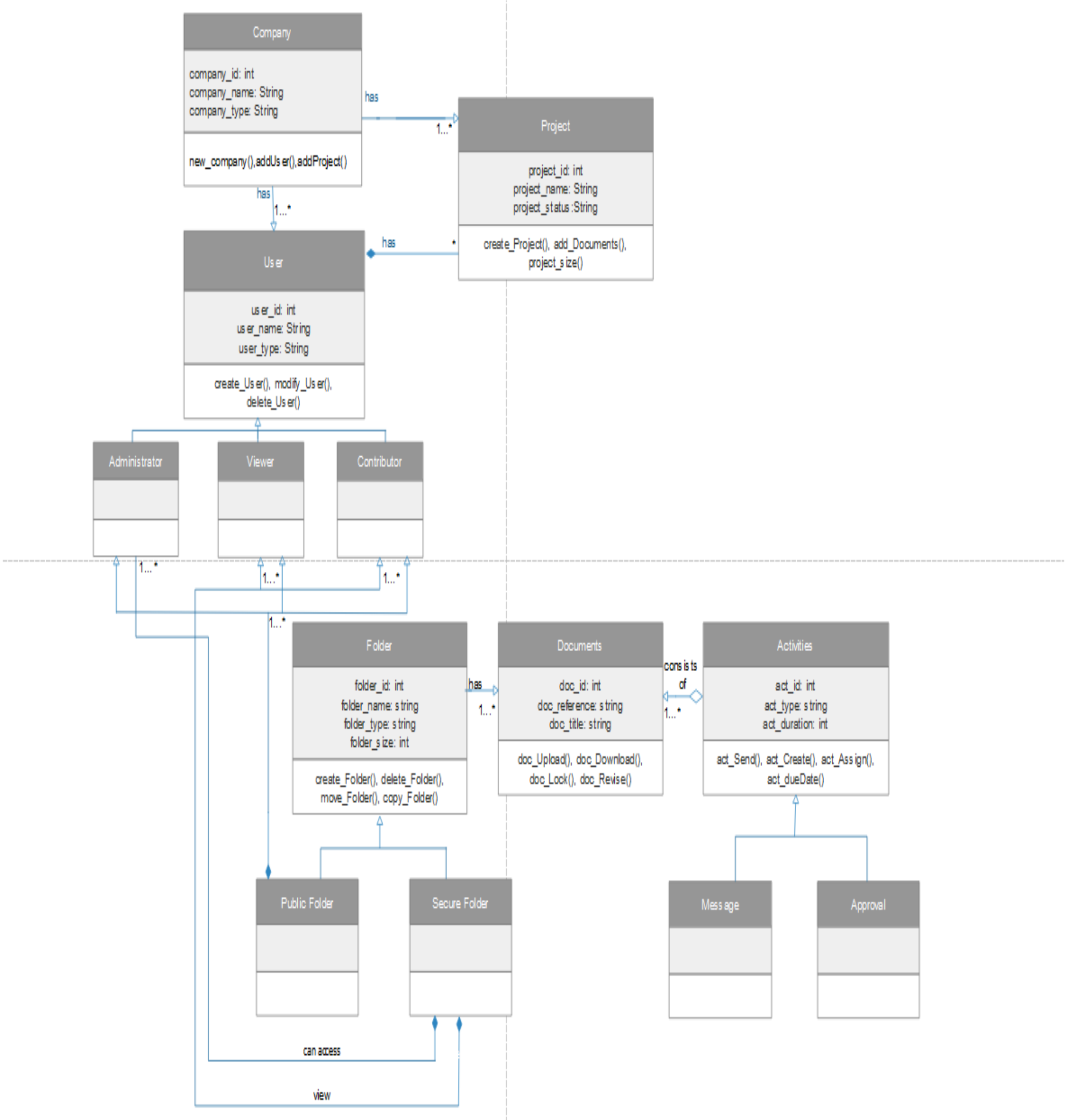
3.1 Entity Relationship diagram



3.2 Object Diagram



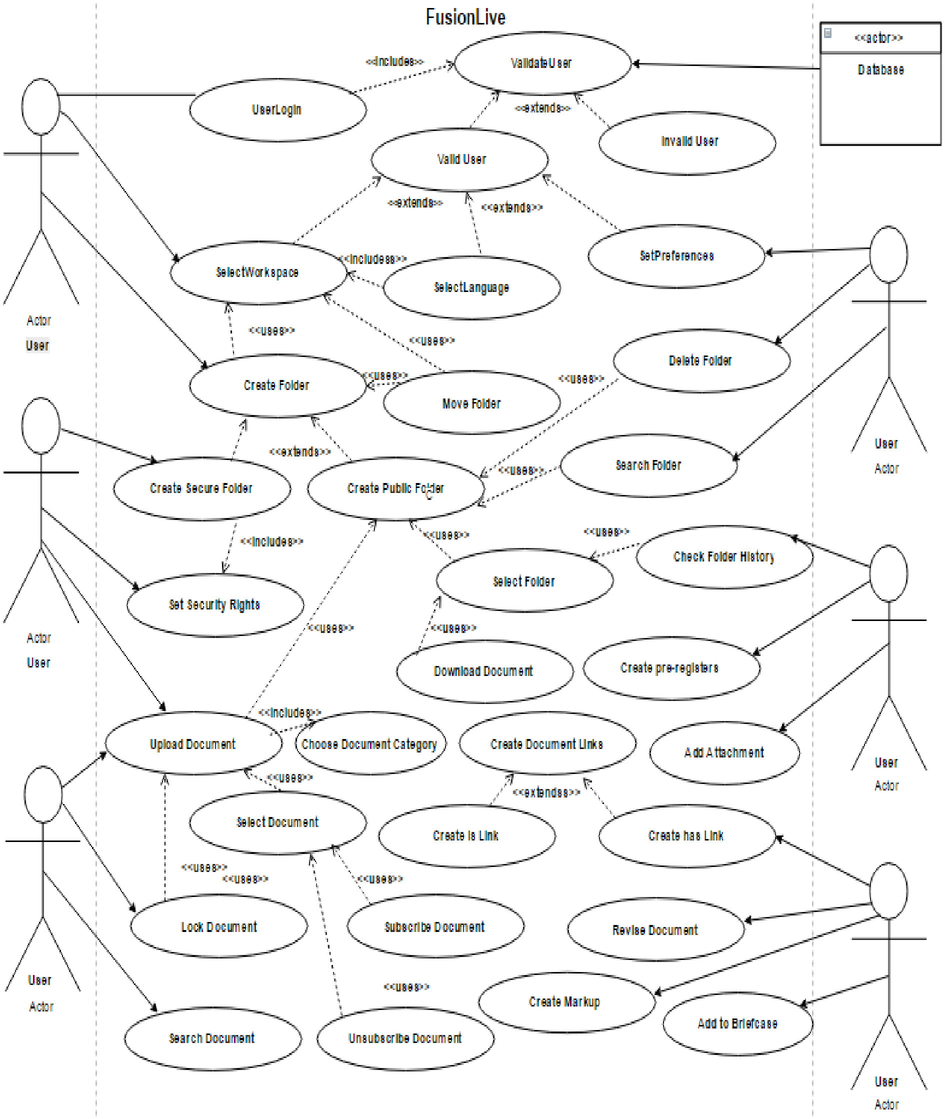
3.3 Class Diagram



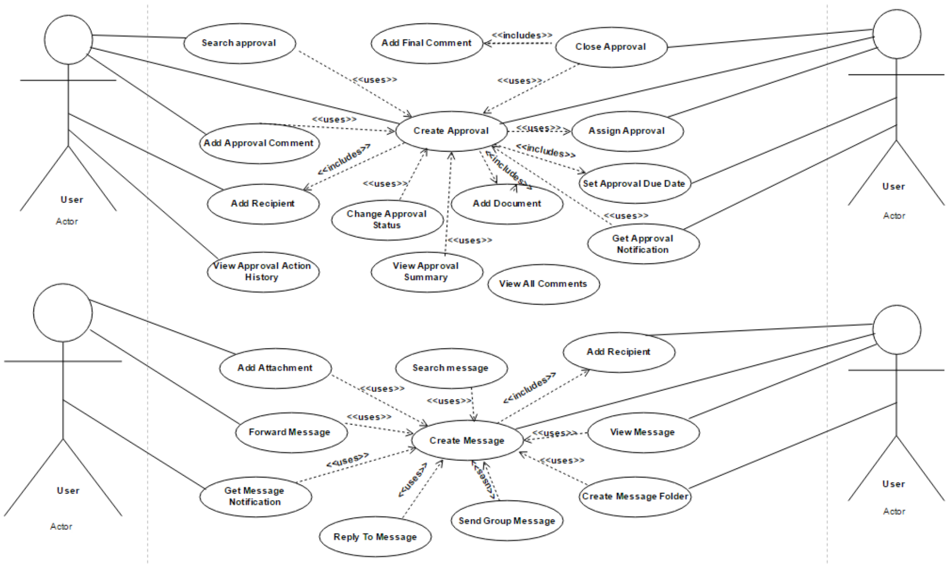
3.4 Use Case Diagram

1) System Use Case

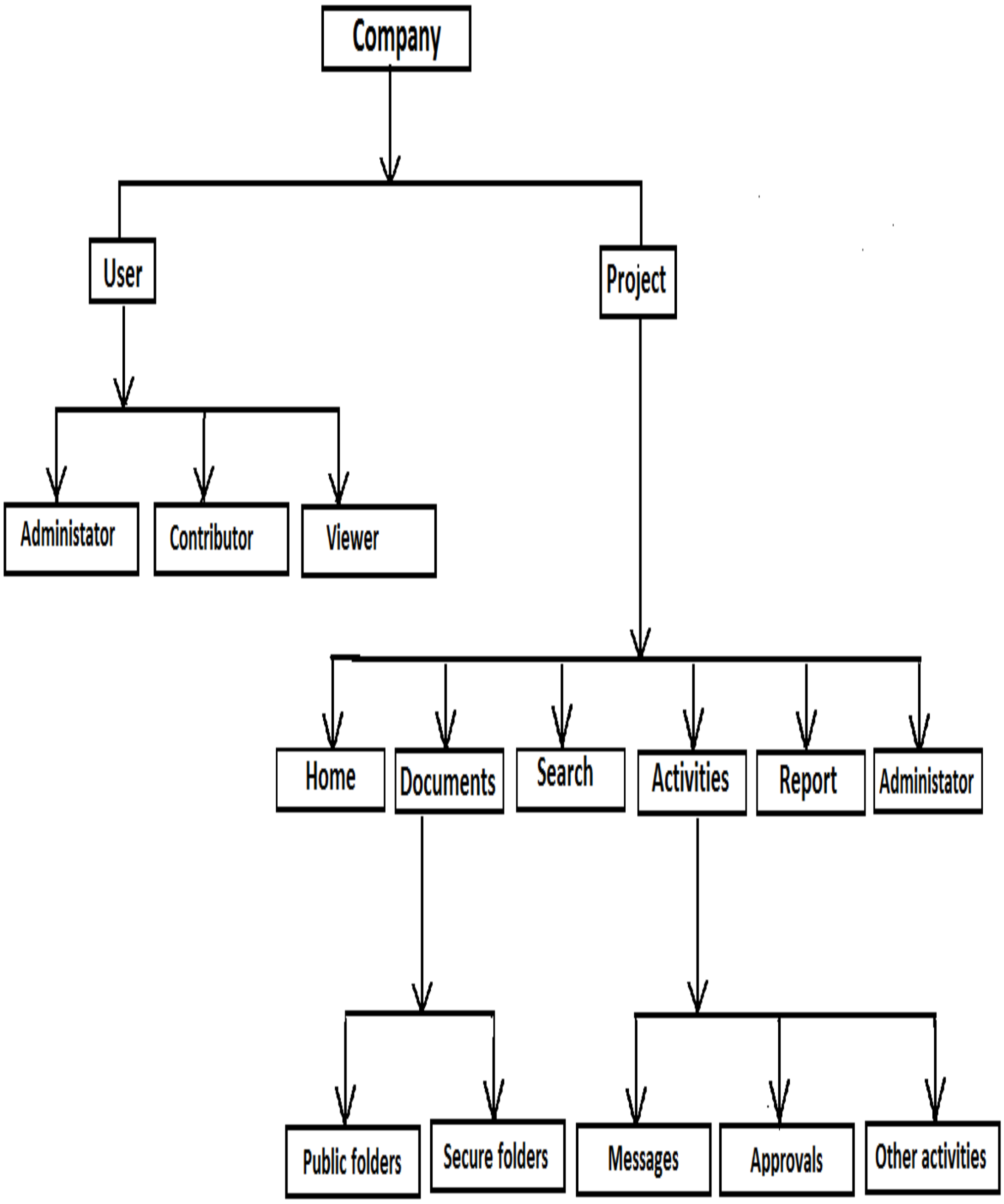
2) Documents Use Case



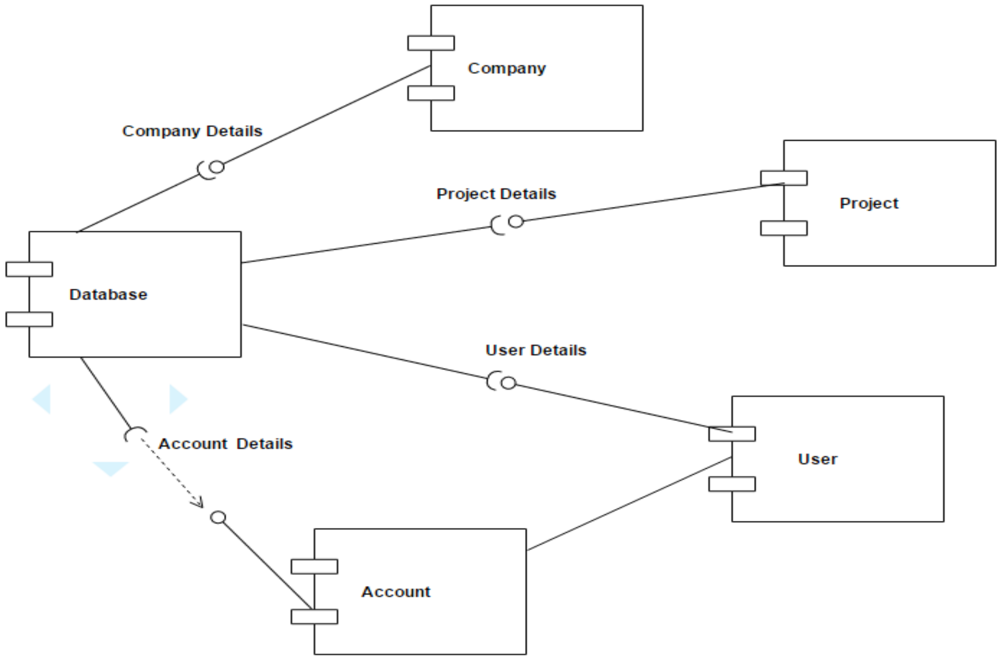
3) Activities Use Case



3.5 Module Hierarchy Diagram



3.6 Component Diagram

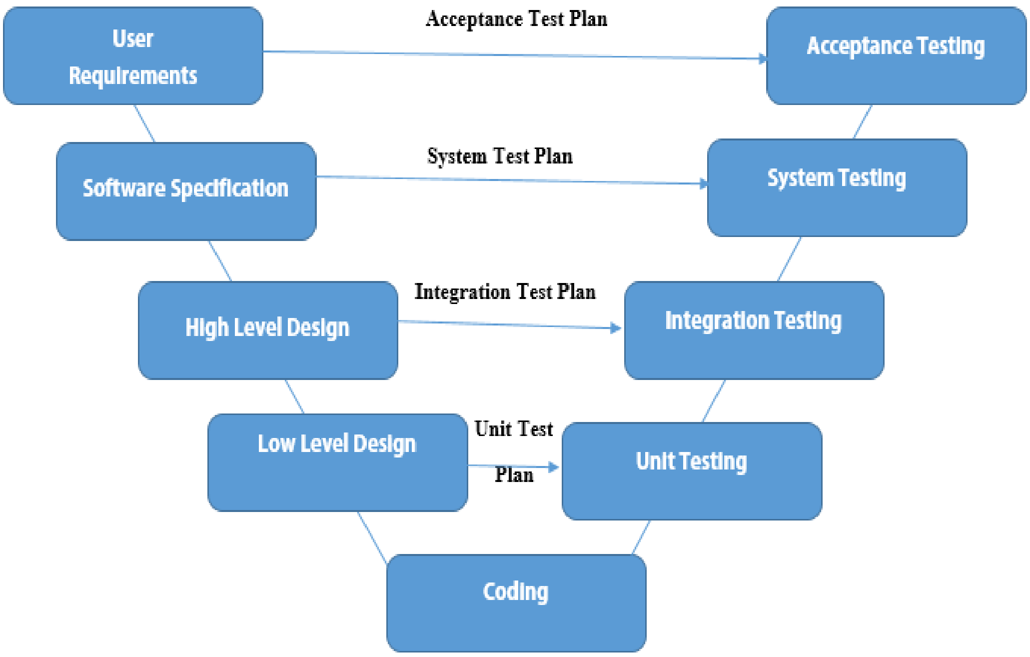


3.7 Testing Strategy and Test Plan

Validation and Verification:

Validation process describes whether the software is accepted by the user or not?

Verification process describes whether the outputs are according to inputs or not?



V-Model

When to use the V-model:

- The V-shaped model should be used for small to medium sized projects where requirements are clearly defined and fixed.
- The V-Shaped model should be chosen when ample technical resources are available with needed technical expertise.
- High confidence of customer is required for choosing the V-Shaped model approach. Since, no prototypes are produced, there is a very high risk involved in meeting customer expectations.

The left arm is known as verification and Right arm is known as validation and the whole diagram is looks like V shape so it is called as V-Model. The V-Model phases are as per follows.

It is also called as Left arm is static and right arm is dynamic arm.

- Business Requirement Specification (BRS) :

1) This is the first phase in the development cycle where the product requirements are understood from the customer perspective.
2) This phase involves detailed communication with the customer to understand his expectations and exact requirement.
3) This is a very important activity and need to be managed well, as most of the customers are not sure about what exactly they need.
4) The acceptance test design planning is done at this stage as business requirements can be used as an input for acceptance testing.

- Software Requirement Specification (SRS) :

1) A Software requirement specification is a document that captures complete description about how the system is expected to perform.
2) And it is a detailed requirement of the application.

3) This is also a very important part because most of the bugs in software are due to incomplete or inaccurate functional requirements.
4) The software code does not matter how well it's written, can't do anything if there are ambiguities in requirements.
5) The team studies and investigates on how the requirements could be implemented.
6) The System test design planning is done at this stage as Software requirement can be used as an input for System testing.
7) Once you have the clear and detailed product requirements, it's time to design the complete system.
8) This Phase focuses on system architecture and design.
9) It provides overview of solution, platform, system, product and service/process. An integration test plan is created in this phase as well in order to test the pieces of the software systems ability to work together.
10) With this phase integration test planning is done.

- <u>Low Level Design (LLD) :</u>

1) Phase is where the actual software components are designed. It defines the actual logic for each and every component of the system.
2) Class diagram with all the methods and relation between classes comes under LLD.
3) Component tests are created in this phase as well.
4) Simultaneously unit test design planning is done.

Coding:

Till this phase all the planning has been done. Here the developer starts building the application according to requirements.

- Unit testing :

1) This unit testing is performed by the developer.
2) Here developers test their program code, functions, classes, procedures to verify that they are all are working as expected.
3) The unit test cases which are created during the low level design are executed.
4) These tests are executed by the developer to validate the functions developed by him.
5) And to locate a bug developer uses a debugging technique.
6) Bug fixing is less costly and easy in this phase.
7) If developer eliminates or do unit testing in a proper way then there is a less chances of bug in his developed module.

8) If testing team found a bug in lateral stage then the bug fixing would be more costly time consuming so this thing can be avoidable if developer do unit testing properly.

- <u>Integration testing :</u>

1) The module, component tested alone should also work when they are connected together.
2) Sometimes the module works fine when tested alone but when we integrate it, it shows error. So we need to ensure that the module when integrated together should also work fine.
3) Basically we need to test the data transfer between the several modules. To ensure that the data transfer between these modules is happening in proper way.
4) There four type of integration testing.
5) Bottom up Integration testing.
6) Top down Integration testing.
7) Critical Part First.
8) Big Bang.

- <u>System Testing :</u>

1) The actual and full fledge testing of the application takes place here in system testing –
2) In system testing the behavior of whole system/product is tested and find out whether system is working as expected or not.
3) In this phase all the system test cases, functional test cases and nonfunctional test cases are executed.
4) System testing is carried out by specialist's testers or independent testers.
5) System testing is most often the final test to verify that the system to be delivered meets the specification and its purpose.
6) The system testing comes under black box software testing. So, the knowledge of internal design or structure or code is not required for this type of software testing'.

- There are different testing techniques are used in the System testing :

1) Functional testing.

2) GUI testing/Usability testing.
3) Security testing.
4) Performance testing.

- User Acceptance Testing :

1) UAT testing is performed after the system testing and UAT testing happens before releasing the software in a real environment.
2) User acceptance is a type of testing performed by the Client to check if the system is built to match the business requirements of the organization.
3) UAT testing is important Because, Developer read the Requirement Document and based on his own understanding developer develop the software which may not actually be what the client needs from the software.
4) UAT testing happens before releasing the software in a real environment.
5) There are two types of UAT testing - Alpha Testing and Beta Testing.

Verification	Validation
Are we building the system right?	Are we building the right system?
Verification is the process of evaluating products of a development phase to find out whether they meet the specified requirements.	**Validation** is the process of evaluating software at the end of the development process to determine whether software meets the customer expectations and requirements.
The objective of Verification is to make sure that the product being develop is as per the requirements and design specifications.	The objective of Validation is to make sure that the product actually meet up the user's requirements, and check whether the specifications were correct in the first place.
Following activities are involved in **Verification**: Reviews, Meetings and Inspections.	Following activities are involved in **Validation**: Testing like black box testing, white box testing, gray box testing etc.
Verification is carried out by QA team to check whether implementation software is as per specification document or not.	**Validation** is carried out by testing team.
Execution of code is not comes under **Verification**.	Execution of code is comes under **Validation**.
Verification process explains	**Validation** process

whether the outputs are according to inputs or not.	describes whether the software is accepted by the user or not.
Verification is carried out before the Validation.	**Validation** activity is carried out just after the Verification.
Following items are evaluated during **Verification**: Plans, Requirement Specifications, Design Specifications, Code, Test Cases etc,	Following item is evaluated during **Validation**: Actual product or Software under test.
Cost of errors caught in **Verification** is less than errors found in Validation.	Cost of errors caught in **Validation** is more than errors found in Verification.
It is basically manually checking the of documents and files like requirement specifications etc.	It is basically checking of developed program based on the requirement specifications documents & files.

Test Plan

1) **Name of the Product: FusionLive**
2) **Prepared by: Pinak Wadnerkar**
3) **Date: 06-04-2017**
4) **Introduction:**

   This section provides an overview of the entire testing process documentation. This document describes both the test plan and the test procedure.

5) **Test Plan Goals and objectives:**

   Software Testing is a process of finding defects". A good test case is one that has a capability of finding yet undiscovered errors. Our test objective is to design test processes that systematically uncover different classes of errors and do so with minimum amount of time and effort.

6) **Scope:**

   Testing scope includes complete Black Box Testing techniques. In this we are testing input & desired output i.e. functional testing. In case of non-functional testing, User Interface testing, usability & performance testing is performed. For bug fixes retesting & regression testing will be performed against written test cases & logged defects. Integration testing will be performed for functional point of view.

7) **Test Strategy:**

- Unit testing: This is testing of individual modules and is usually carried out to ensure the validity of a particular module.
- Integrated Testing: Integrated testing is testing of the system modules. This is done to identify errors which relate to the integration of different module.
- System Testing: It tests system against its initial objectives. It is done either in a simulated environment or in a live environment.
- Validation Testing: Where requirement established is part of software requirement analysis and is validated against software that has been established.

8) **Components to be tested:**

- Login
- Documents
- Messages
- Approvals

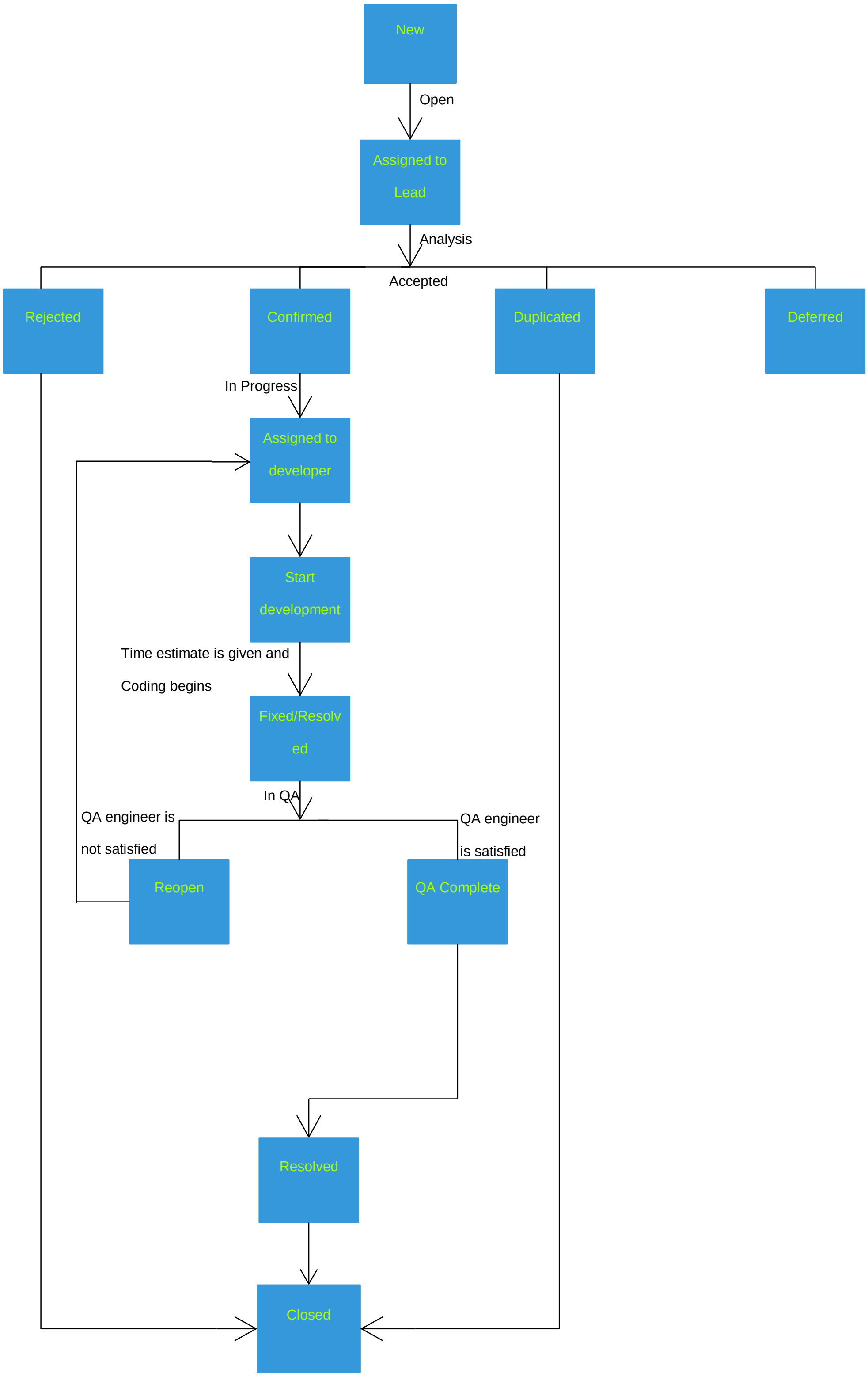
9) **Test cases:**

This procedure for unit testing is described for each software component (that will be unit tested) is presented. This section will consist of test cases for all components.

10) **Test Deliverables:**

- Test Plan (this document itself)
- Test Cases
- Test Scripts
- Defect/Execution Logs
- Test Reports

(2) Defect Lifecycle for project



- **Closed:**

Once the bug is fixed, it is tested by the tester. If the tester feels that the bug no longer exists in the software, he changes the status of the bug to "CLOSED". This state means that the bug is fixed, tested and approved software with bug fixed, he changes the state of bug to "TEST". It specifies that the bug has been fixed and is released to testing team.

- **Deferred:**

If a valid NEW or ASSIGNED defect is decided to be fixed in upcoming releases instead of the current release it is DEFERRED. This defect is ASSIGNED when the time comes.

- **Rejected:**

If found bug is not invalid, it is REJECTED. The specific reason for this action needs to be given.

- **Accepted:**

If the Tester / Test Lead finds that the defect is indeed fixed and is no more of any concern, it is VERIFIED.

- **Reopen:**

If the Tester finds that the ‘fixed’ bug is in fact not fixed or only partially fixed, it is reassigned to the Developer who ‘fixed’ it. A REASSIGNED/Reopen bug needs to be COMPLETED again.

- **New:**

Tester finds a defect and posts it with the status NEW.

- **Open:**

After a tester has posted a bug, the lead of the tester approves that the bug is genuine and he changes the state to “OPEN”.

- **Assign:**

Once the lead changes the state as “OPEN”, he assigns the bug to corresponding developer or developer team. The state of the bug now is changed to “ASSIGN”.

- **In QA:**

Once the developer fixes the bug, he has to assign the bug to the testing team for next round of testing

3.8 Module Specifications

- **Documents:**

The Documents area is a repository where the workspace project documents are stored. The folder structure is specific to the requirements of the project. Access to documents is controlled on a folder-by-folder basis and is generally managed by the workspace administrator. The folder security determines who can view, upload and edit documents in the folders.

Document Actions Document Actions allows you to perform operations on documents within a folder.

Note: Only document actions available to you will be selectable.

Within the Document Actions you can perform the following:

Activity	Description
Lifecycle	Change the document lifecycle state.
Attachments	Add supporting documents related to the main document. Attachments do not appear in the document list, but are accessed through the main document.
Viewer	View document using FusionLive Viewer
Generate COBie Sheet	You can export a BIM model or IFC file to a Microsoft Excel spreadsheet structured to follow the COBie standard.
Merge Model	Allows you to merge IFC compliant files using the BIM viewer.
Info	Displays detailed metadata information about the document.
Secure Link	Generates a shortcut link to allow external users to access the document.
Edit Info	Allows you to edit the metadata of multiple documents at once.
Lock	Locks the document. No changes can be made until it is unlocked.
Unlock	Unlocks the document, allowing changes to be made.
Activity	**Description**
Move	Allows you to move the document to another folder location.
Linking	Allows you to link documents to other locations in the file structure.
Delete	Deletes the document from the folder.
Check-Out/Check-In/ Cancel Check-Out	Checking out allows you to lock a file and automatically open it for updating. When you have finished your updates, checking the document in prompts for a new revision and unlocks the document.

- **Activities:**

The Activities page provides access to the activities to which you have access. Activities are automatic processes which enable you to perform common business functions within your FusionLive project.

Activities may be of the following types:

1) Messages - communications sent to you by other users or by you to them
2) Transmittals - documents sent to other users for a particular action to be performed by the recipients
3) Approvals - documents sent for approval
4) Reviews - PDF documents sent for review and mark up
5) RFIs - requests for information
6) Technical Queries - questions of a technical nature
7) Change Requests - formal requests for change of some item in the project
8) Reprographics - enables documents to be printed at your choice of location

9) Tasks - workflow-based instructions requiring users to perform some specific action.

Activities used specifically for this project:

- Messages:

  Messages allow FusionLive users to communicate with each other. The Messages activity area is structured into the following folders:

  1) Received - messages that have been sent to you (your messages inbox)
  2) Sent - messages that you have sent to other people (your messages outbox)
  3) Archived - messages that are no longer relevant to the ongoing project and can be archived

- Approvals:

  The Approvals activity type is a business process workflow which enables documents to be submitted to nominated users for their approval, comment or information. If the documents are circulated singly, the activity is called an approval. If more than one document is associated with the activity, it is known as a submittal package. Document approvals that belong to the same submittal package have the same Submittal Number. You can perform actions or make comments on single document approvals or to the entire submittal package at once.

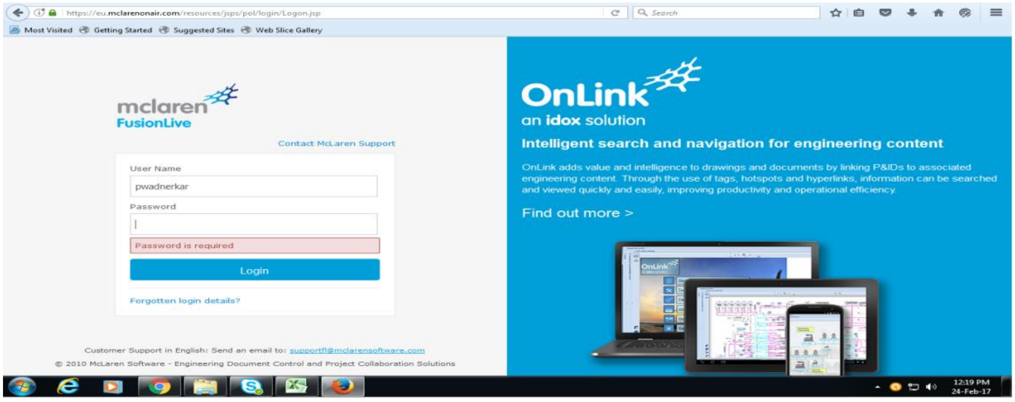
  The Approvals activity area is structured into the following folders:

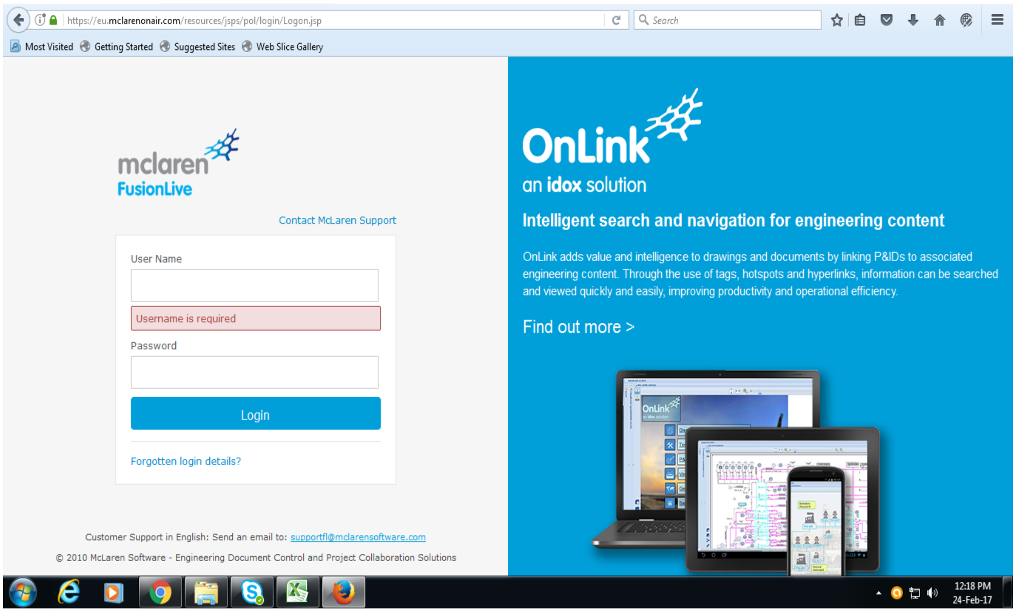
  1) Assigned To Me - documents that have been sent to you for approval
  2) For My Comment - documents that have been sent to you for comment
  3) For My Information - documents that have been sent to you for information

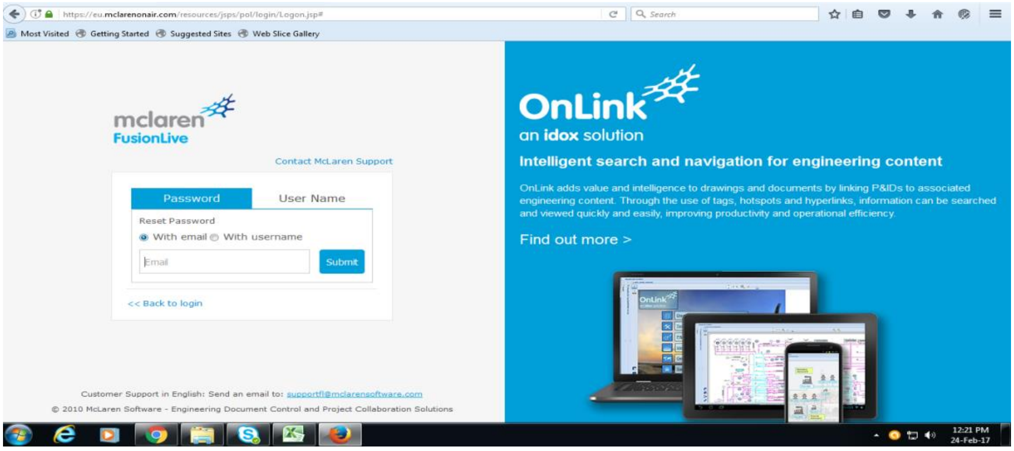
4) Submitted By Me - approvals that have been circulated by you
5) All Workspace Approvals - all approvals that have been sent or received in this project workspace.

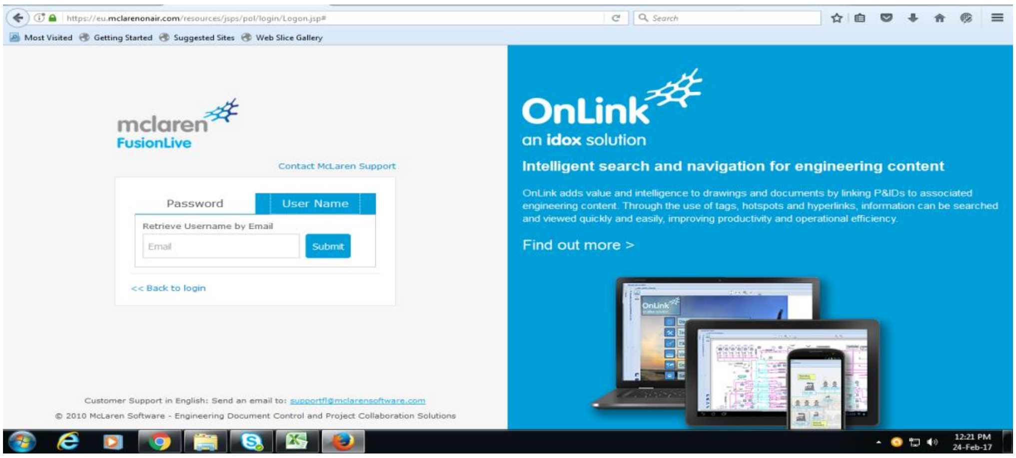
3.9 User Interface Design (Testing Screens):

1. Login flow



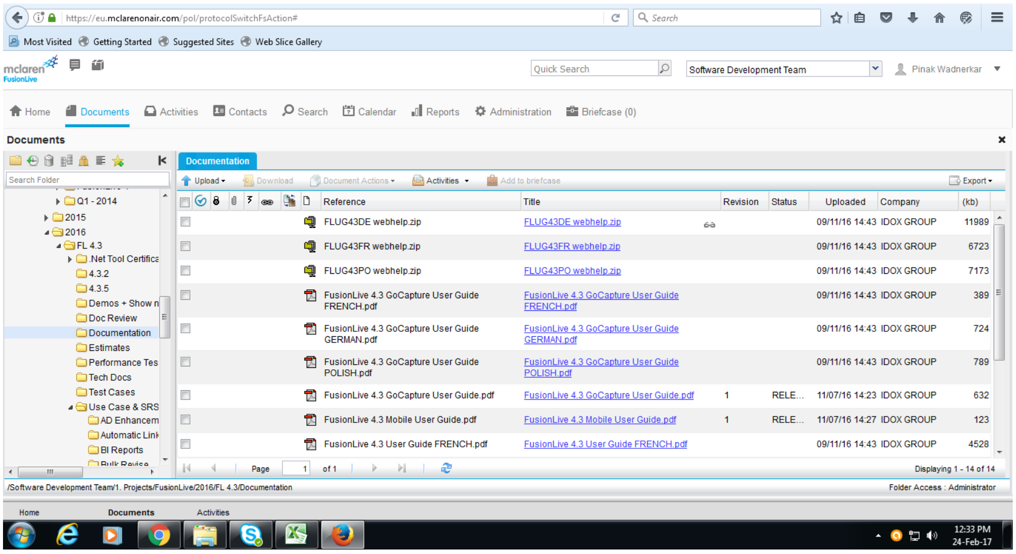


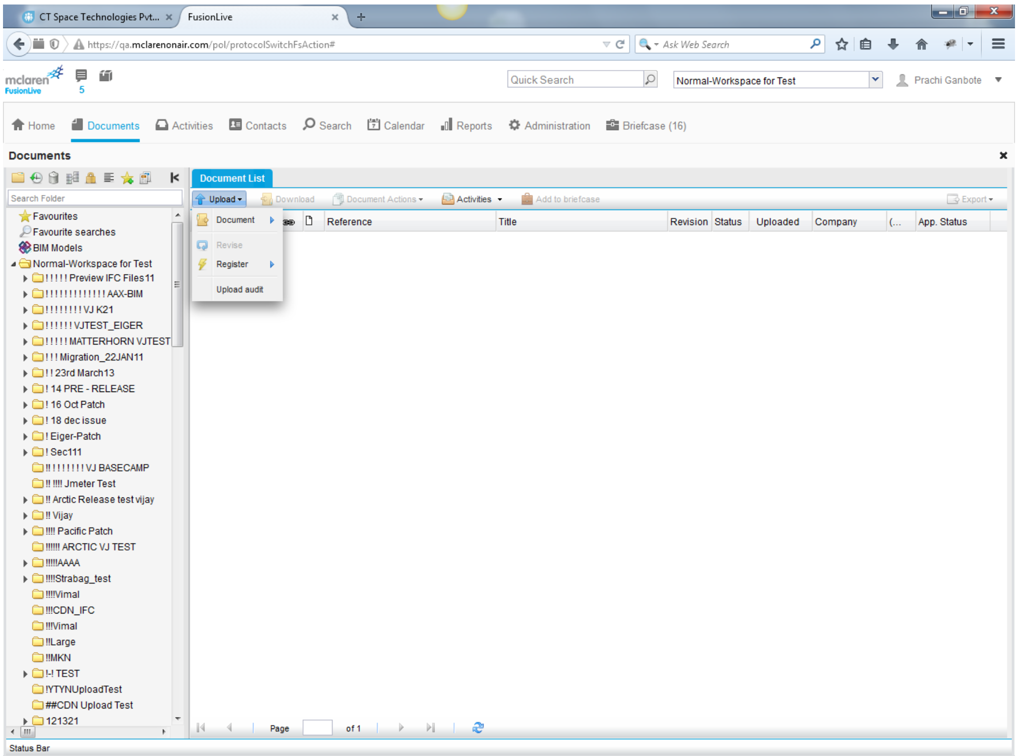


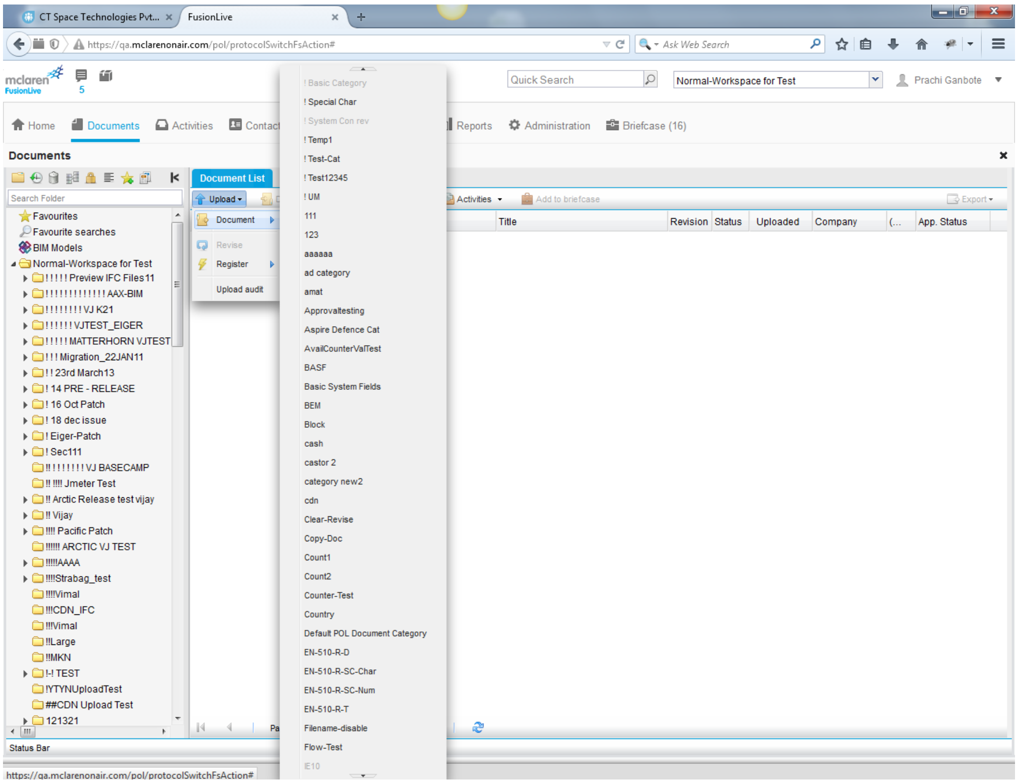


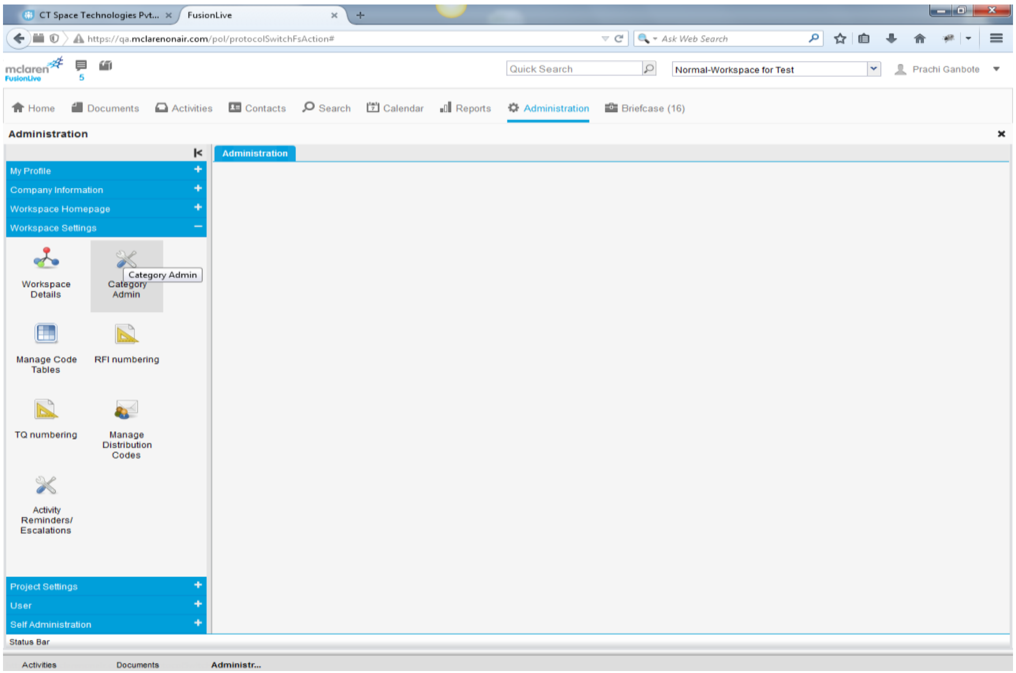
The login screen is the first screen a user will see if he wishes to use the application. Login screen requires users to enter valid username and password for correct identification of users. Login screens help in verification and validation from the testing perspective.

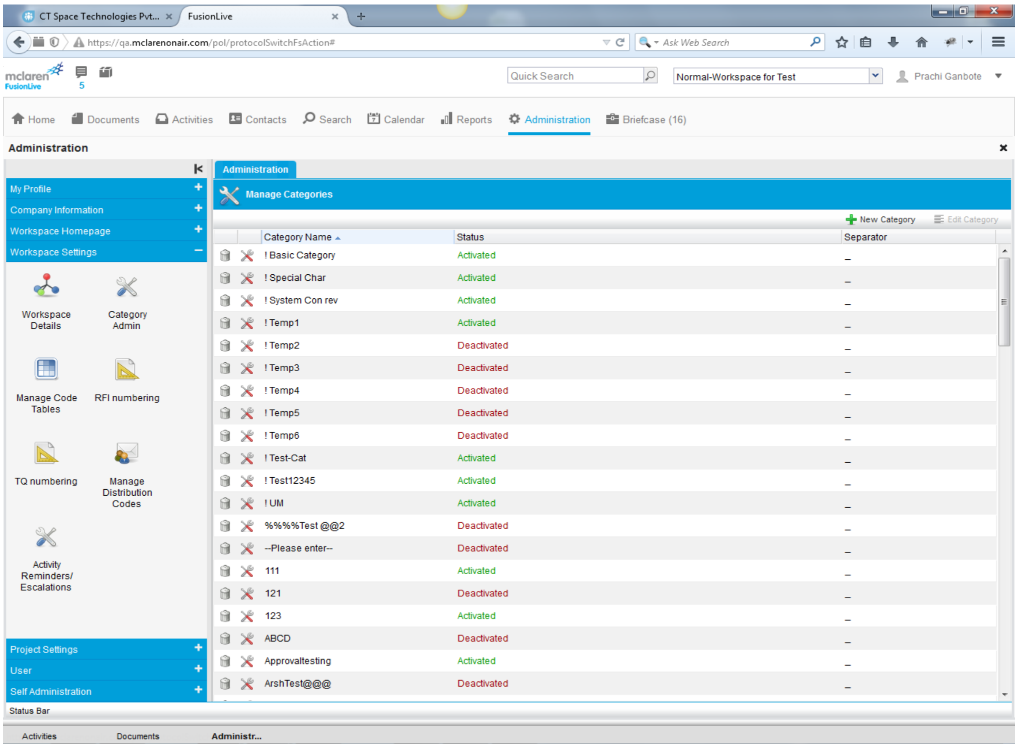
2. Document Upload Flow:

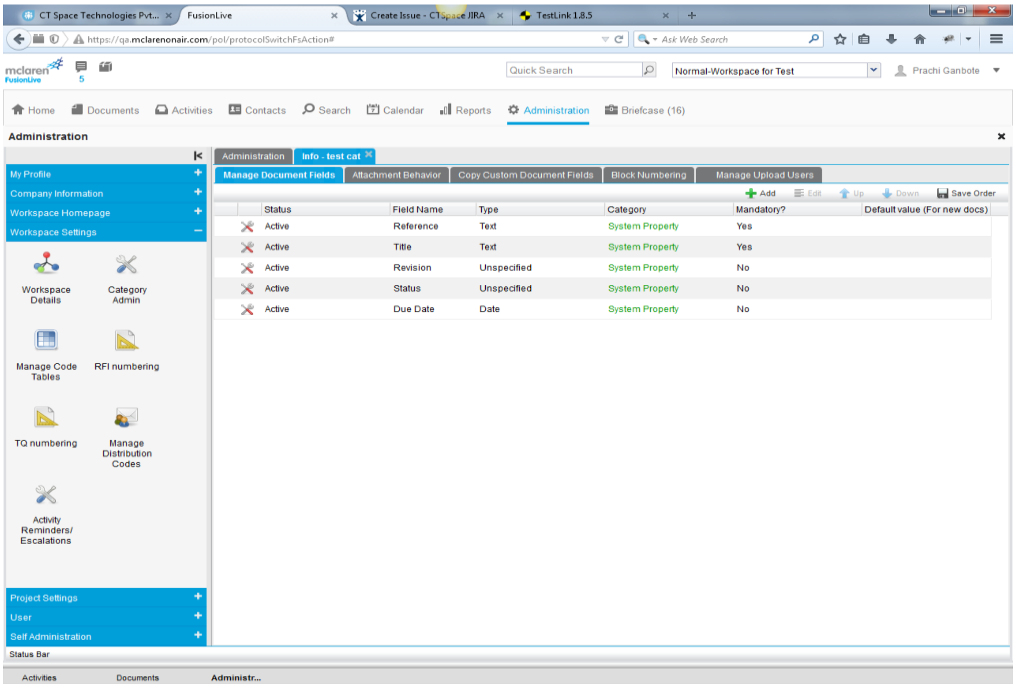


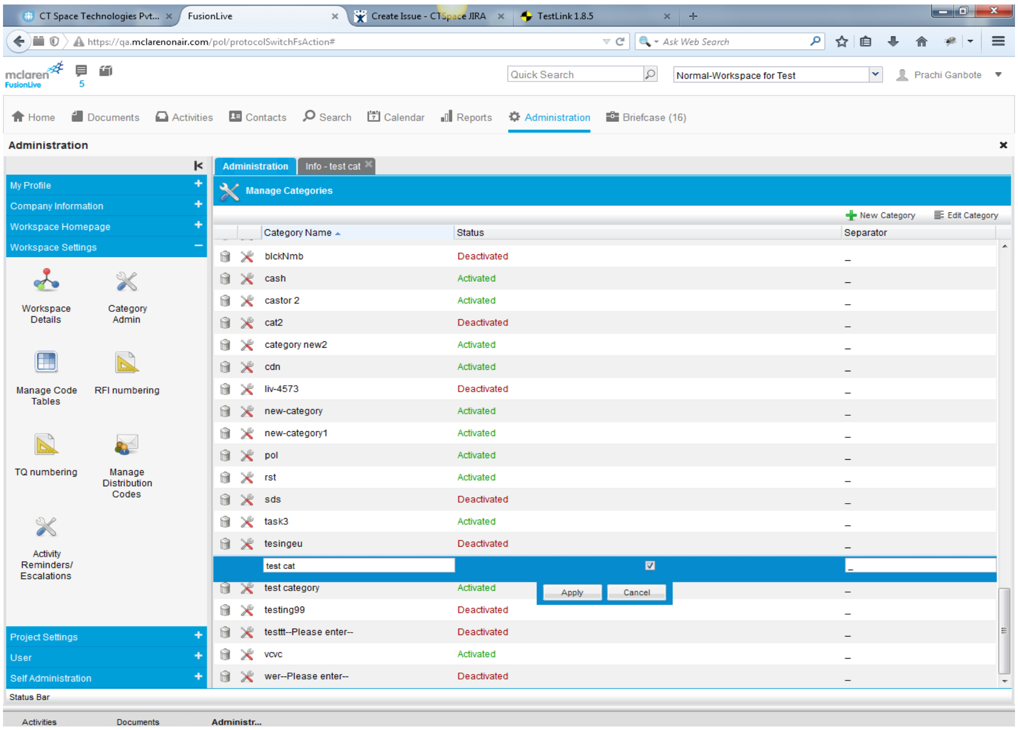


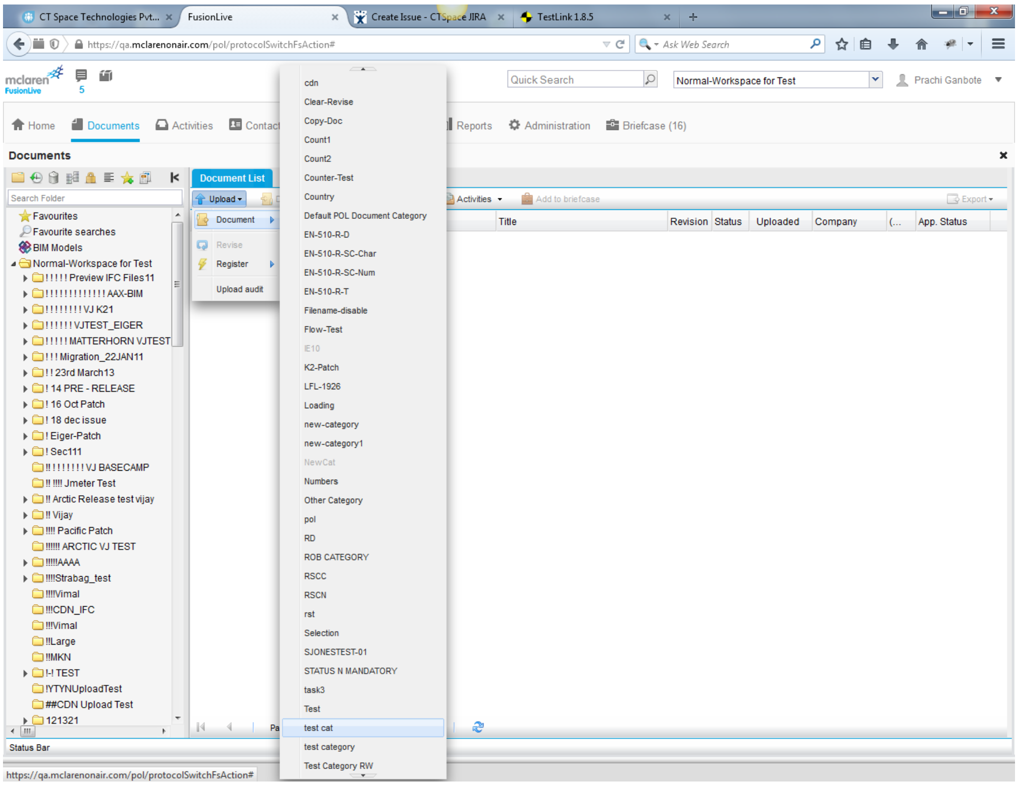


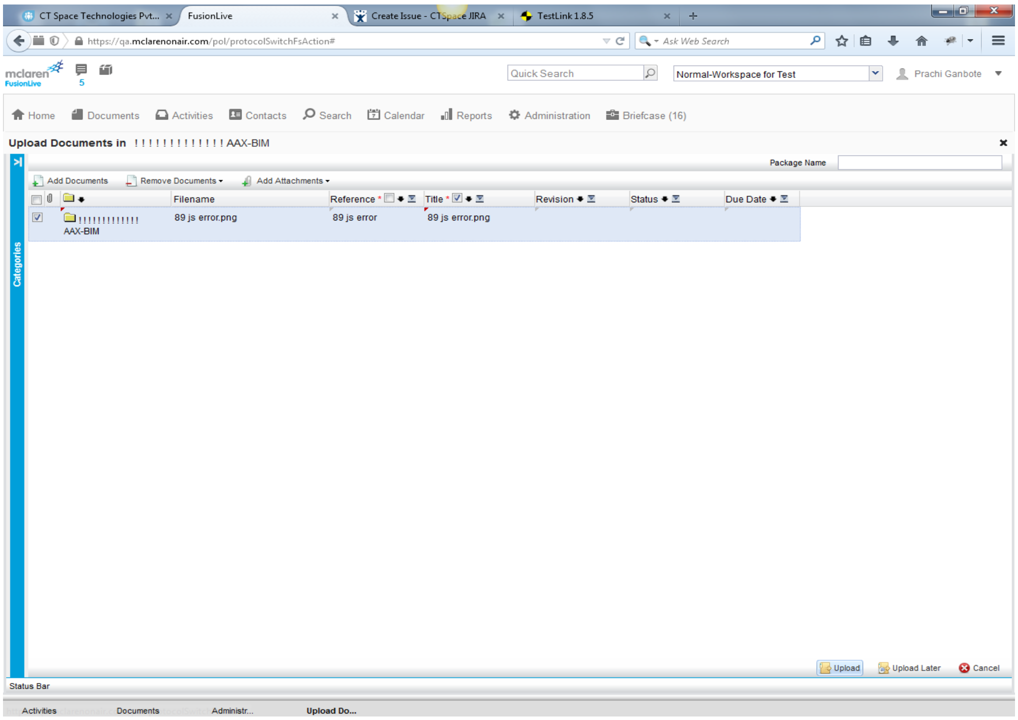


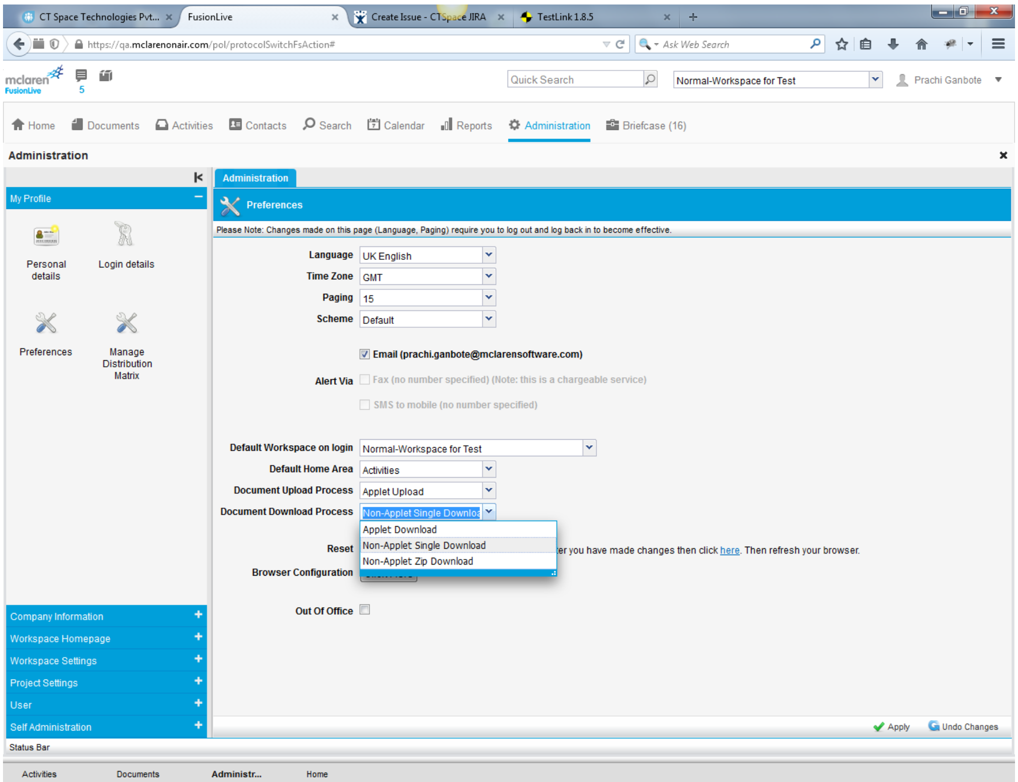

Administration
My Profile
Company Information
Workspace Homepage
Workspace Settings
Workspace Details
Category Admin
Manage Code Tables
RFI numbering
TQ numbering
Manage Distribution Codes
Activity Reminders/ Escalations
Project Settings
User
Self Administration
Manage Categories
New Category
Edit Category
Category Name
Status
Separator
! Basic Category Activated
! Special Char Activated
! System Con rev Activated
! Temp1 Activated
! Temp2 Deactivated
! Temp3 Deactivated
! Temp4 Deactivated
! Temp5 Deactivated
! Temp6 Deactivated
! Test-Cat Activated
! Test12345 Activated
! UM Activated
%%%%Test @@2 Deactivated
--Please enter-- Deactivated
111 Activated
121 Deactivated
123 Activated
ABCD Deactivated
Approvaltesting Activated
ArshTest@@@ Deactivated
Status Bar

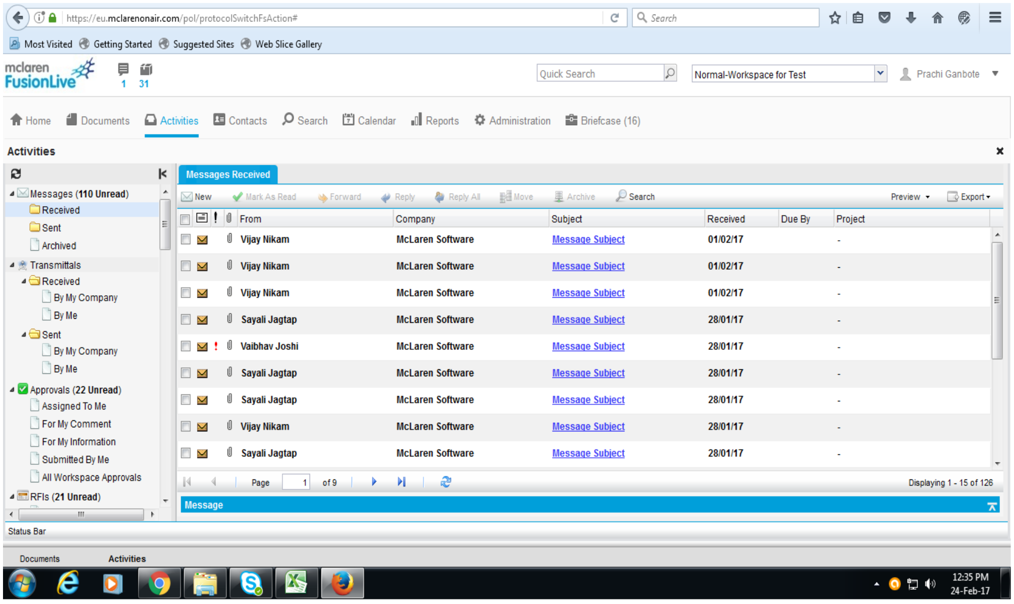

Administration
Info - test cat
Manage Document Fields
Attachment Behavior
Copy Custom Document Fields
Block Numbering
Manage Upload Users
Add
Edit
Up
Down
Save Order
Status
Field Name
Type
Category
Mandatory?
Default value (For new docs)
Active Reference Text System Property Yes
Active Title Text System Property Yes
Active Revision Unspecified System Property No
Active Status Unspecified System Property No
Active Due Date Date System Property No
Status Bar

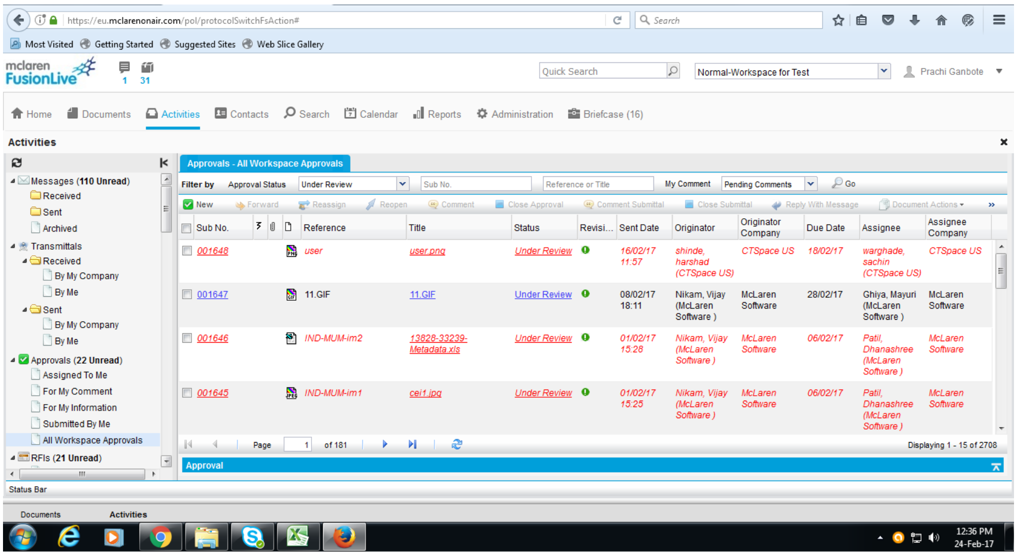






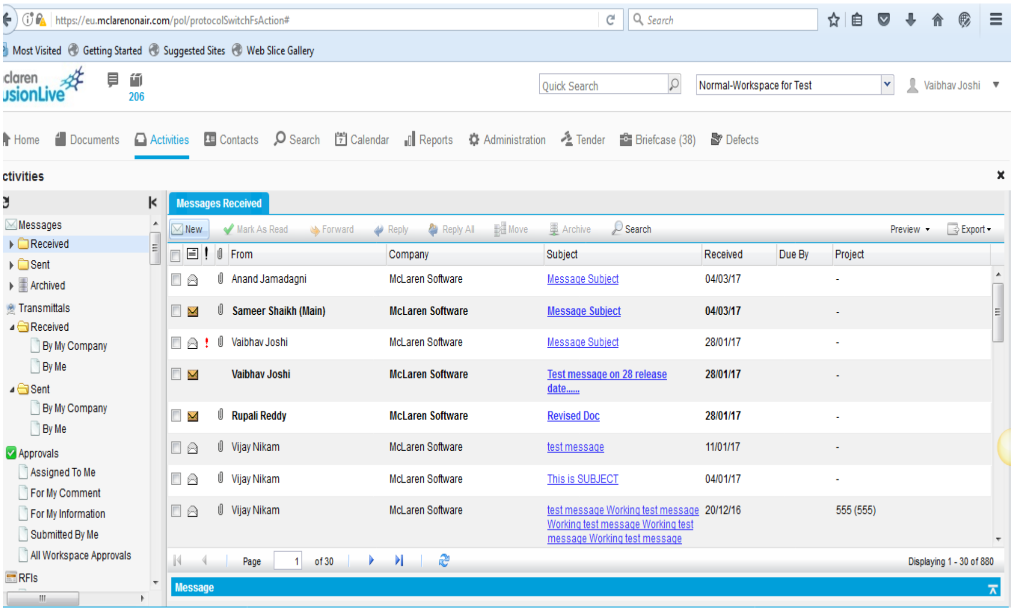


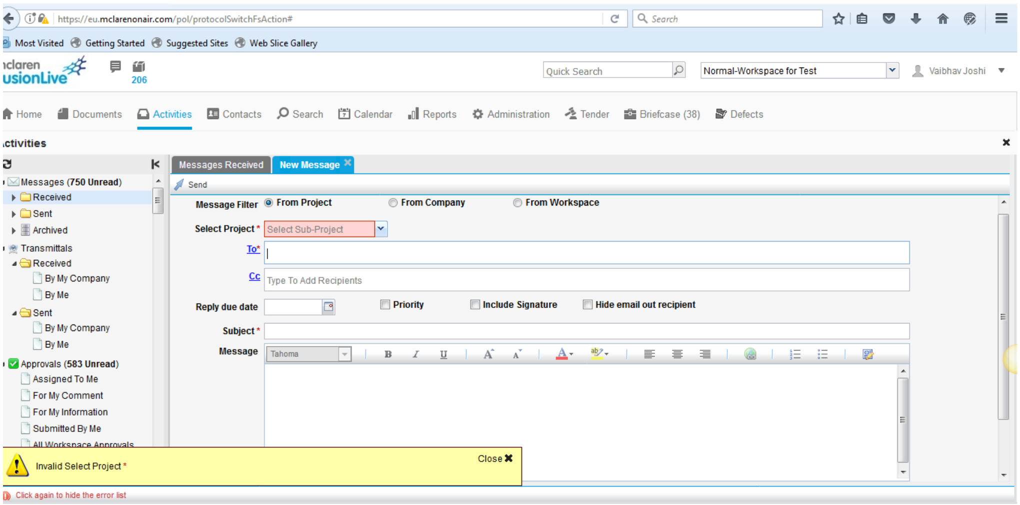


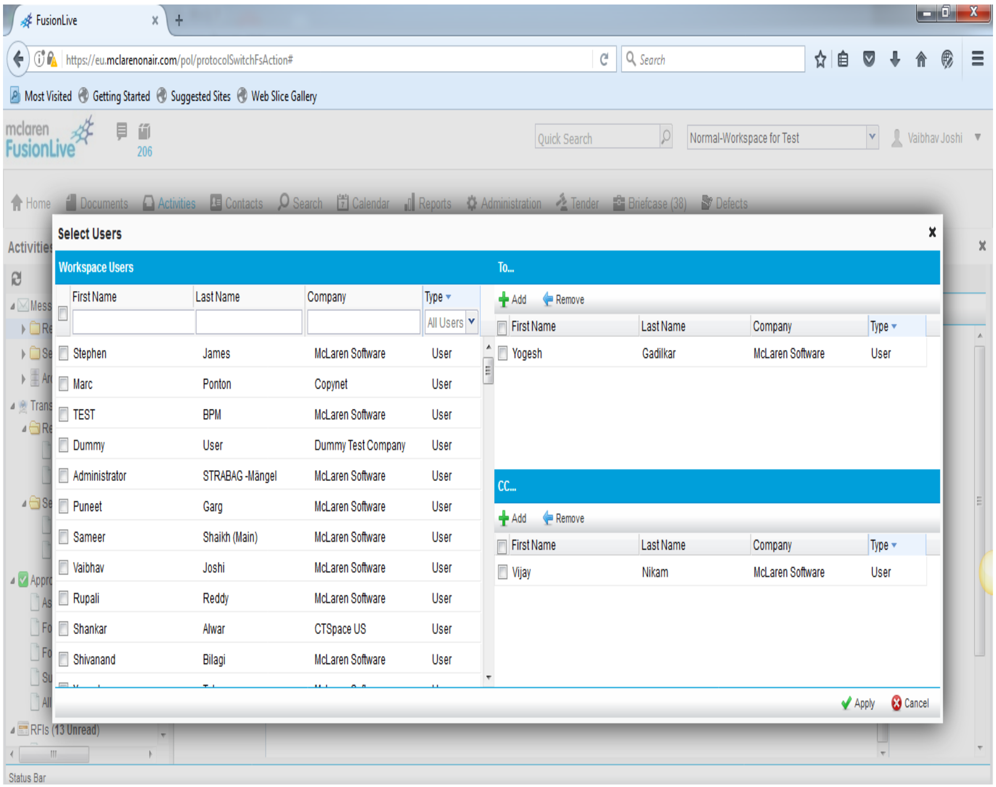


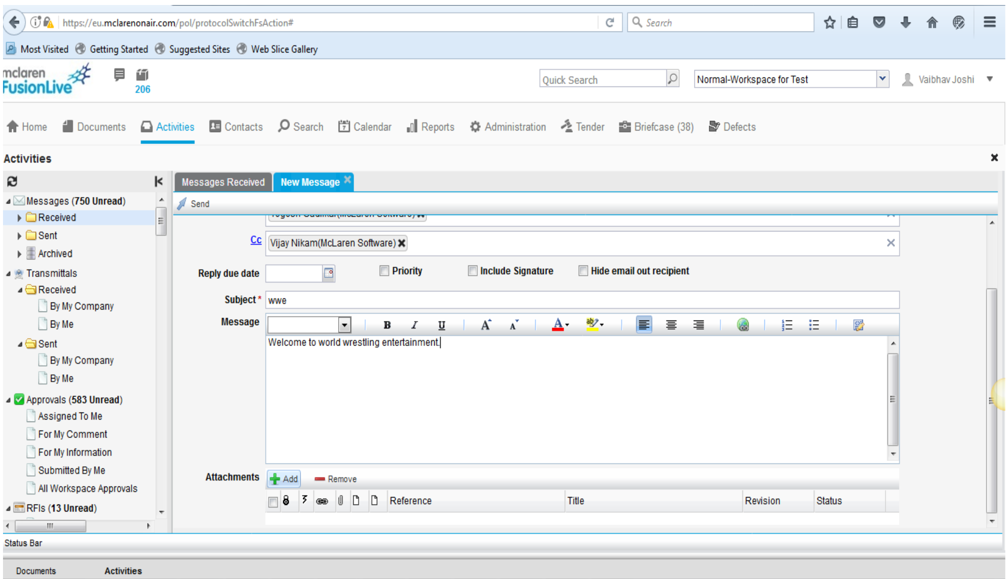
Documents module helps in document management. User can manage all his project related data from this module. We test the folder location, created by user, date, document security etc. in this module.

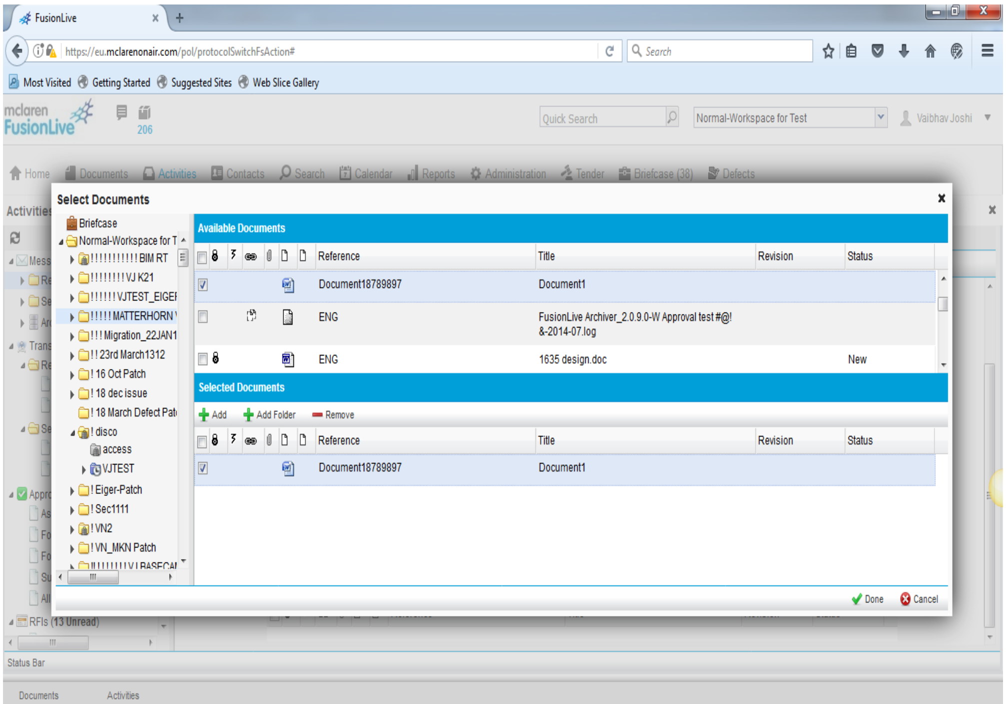
3. Message Flow:

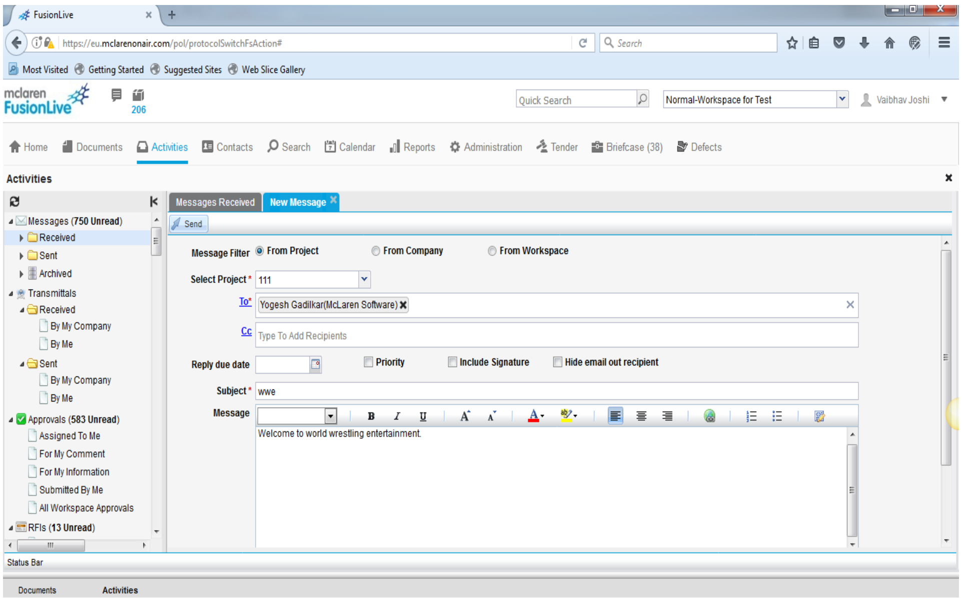


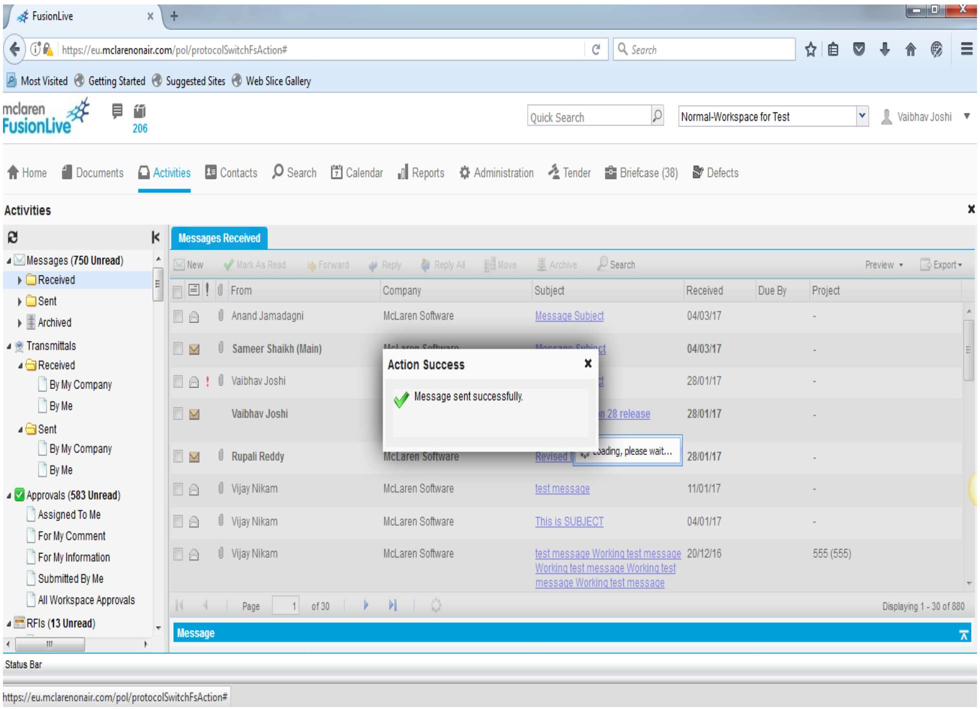



FusionLive
https://eu.mclarenonair.com/pol/protocolSwitchFsAction#
Most Visited Getting Started Suggested Sites Web Slice Gallery
mclaren FusionLive
206
Quick Search
Normal-Workspace for Test
Vaibhav Joshi
Home Documents Activities Contacts Search Calendar Reports Administration Tender Briefcase (38) Defects
Select Users
Workspace Users
First Name Last Name Company Type
All Users
Stephen James McLaren Software User
Marc Ponton Copynet User
TEST BPM McLaren Software User
Dummy User Dummy Test Company User
Administrator STRABAG -Mängel McLaren Software User
Puneet Garg McLaren Software User
Sameer Shaikh (Main) McLaren Software User
Vaibhav Joshi McLaren Software User
Rupali Reddy McLaren Software User
Shankar Alwar CTSpace US User
Shivanand Bilagi McLaren Software User
To...
Add Remove
First Name Last Name Company Type
Yogesh Gadilkar McLaren Software User
CC...
Add Remove
First Name Last Name Company Type
Vijay Nikam McLaren Software User
Apply Cancel
RFIs (13 Unread)
Status Bar


https://eu.mclarenonair.com/pol/protocolSwitchFsAction#
Most Visited Getting Started Suggested Sites Web Slice Gallery
mclaren FusionLive
206
Quick Search
Normal-Workspace for Test
Vaibhav Joshi
Home Documents Activities Contacts Search Calendar Reports Administration Tender Briefcase (38) Defects
Activities
Messages Received New Message
Send
Messages (750 Unread)
Received
Sent
Archived
Transmittals
Received
By My Company
By Me
Sent
By My Company
By Me
Approvals (583 Unread)
Assigned To Me
For My Comment
For My Information
Submitted By Me
All Workspace Approvals
RFIs (13 Unread)
Cc
Vijay Nikam(McLaren Software)
Reply due date
Priority
Include Signature
Hide email out recipient
Subject *
wwe
Message
Welcome to world wrestling entertainment.
Attachments
Add Remove
Reference Title Revision Status
Status Bar
Documents Activities

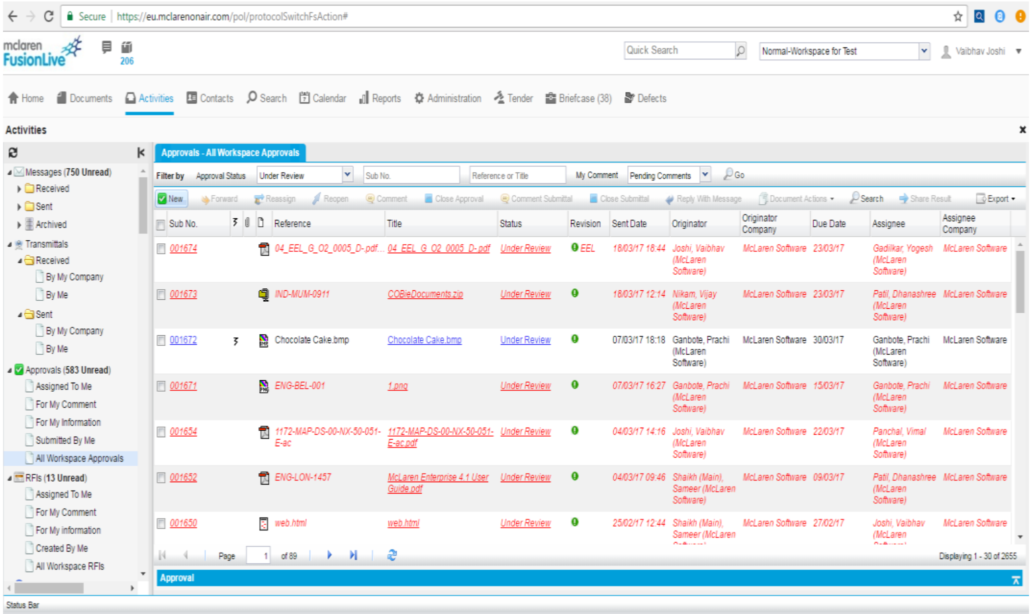


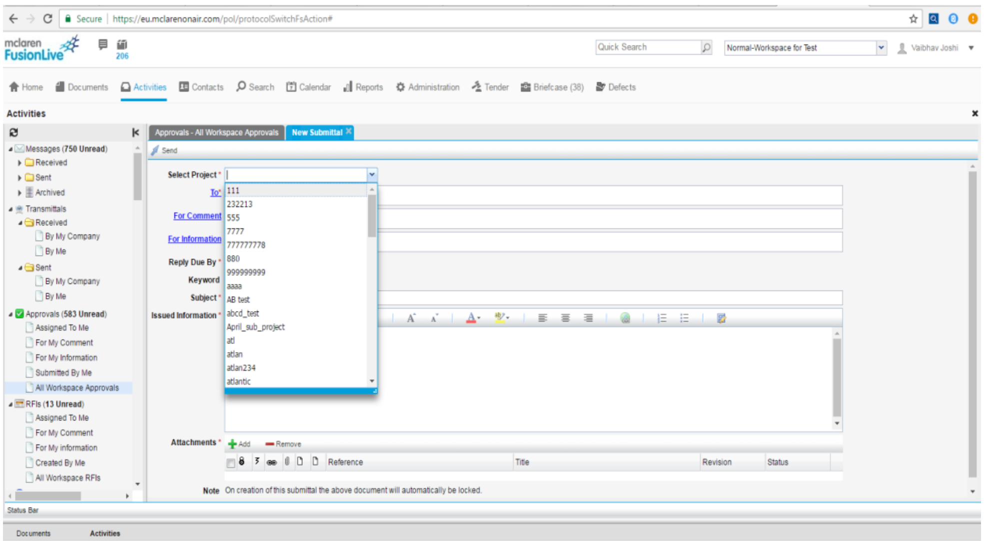


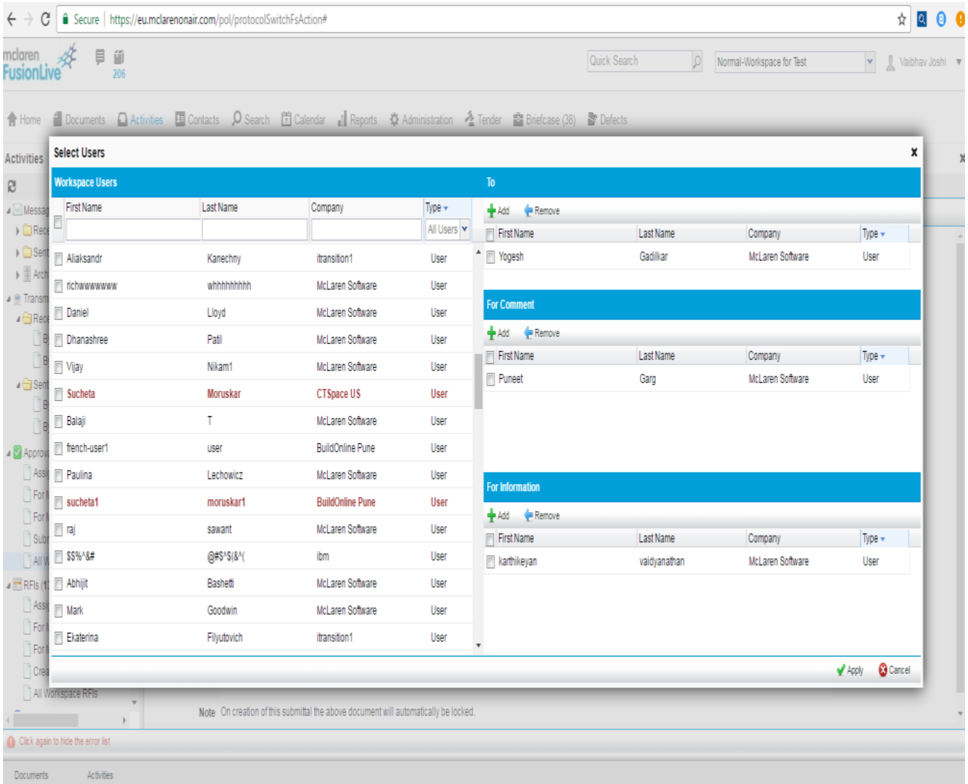


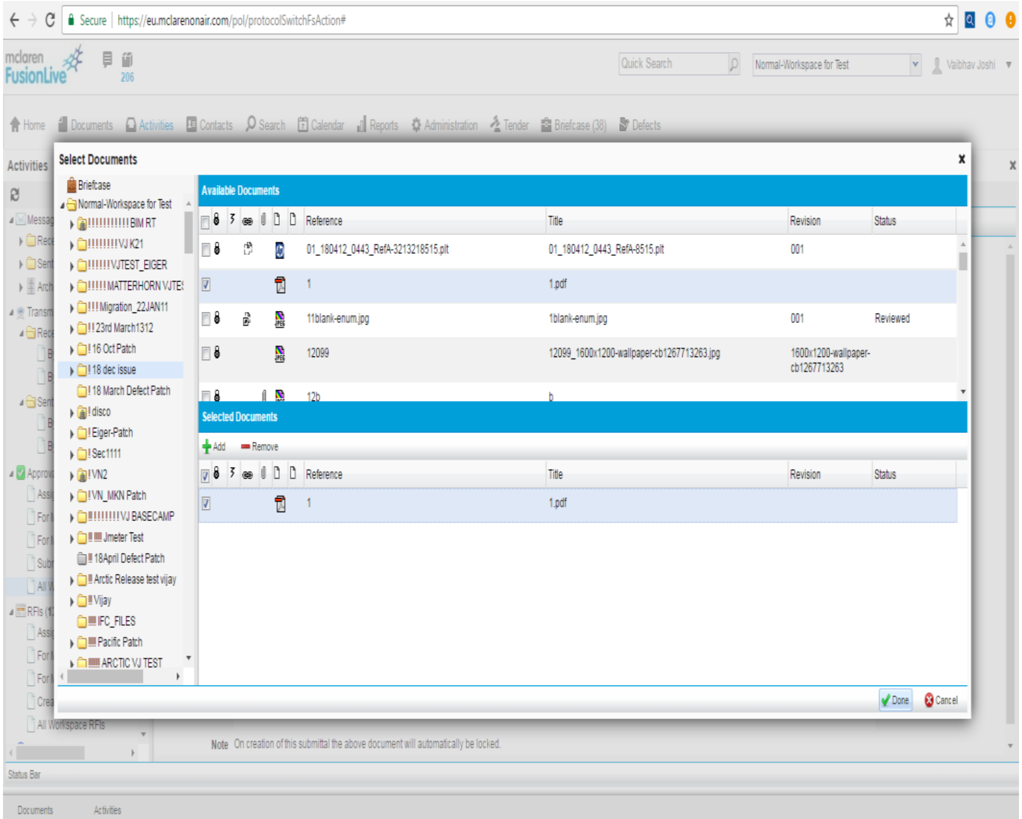
Messages help in normal communication that happens related to the project. While creating a message we test whether the mandatory fields are filled or not and whether the message is sent to the intended user.

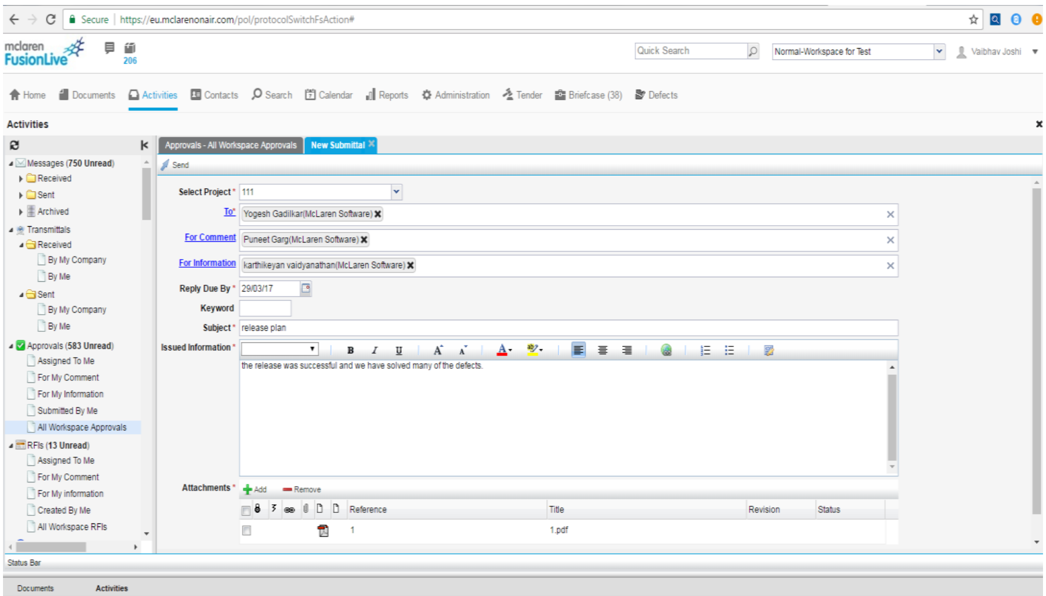
4. Approval Flow:

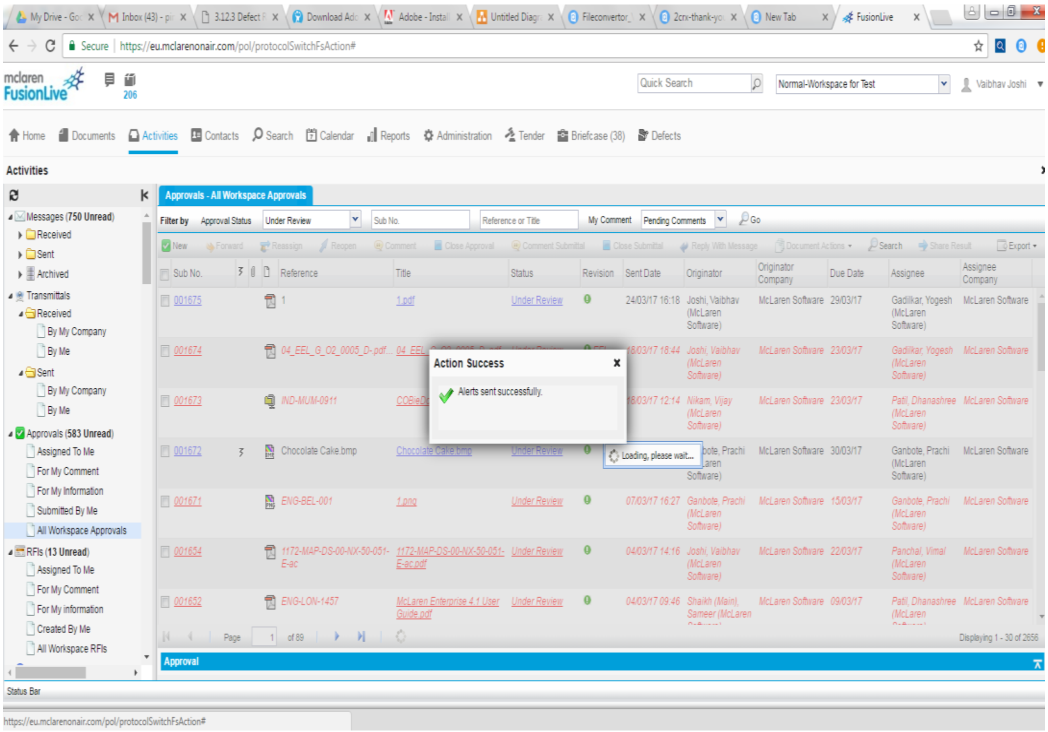





Select Users
Workspace Users
First Name
Last Name
Company
Type
All Users
Aliaksandr Kanechny itransition1 User
richwwwwwww whhhhhhhh McLaren Software User
Daniel Lloyd McLaren Software User
Dhanashree Patil McLaren Software User
Vijay Nikam1 McLaren Software User
Sucheta Moruskar CTSpace US User
Balaji T McLaren Software User
french-user1 user BuildOnline Pune User
Paulina Lechowicz McLaren Software User
sucheta1 moruskar1 BuildOnline Pune User
raj sawant McLaren Software User
Abhijit Bashetti McLaren Software User
Mark Goodwin McLaren Software User
Ekaterina Filyutovich itransition1 User
To
Add
Remove
Yogesh Gadilkar McLaren Software User
For Comment
Puneet Garg McLaren Software User
For Information
karthikeyan vaidyanathan McLaren Software User
Apply
Cancel
Home
Documents
Activities
Contacts
Search
Calendar
Reports
Administration
Tender
Defects
Quick Search
Normal-Workspace for Test
Vaibhav Joshi
Note On creation of this submittal the above document will automatically be locked.
Click again to hide the error list


Select Documents
Available Documents
Reference
Title
Revision
Status
01_180412_0443_RefA-3213218515.plt
01_180412_0443_RefA-8515.plt
001
1
1.pdf
11blank-enum.jpg
1blank-enum.jpg
Reviewed
12099
12099_1600x1200-wallpaper-cb1267713263.jpg
1600x1200-wallpaper-cb1267713263
Selected Documents
Add
Remove
Done
Cancel
Note On creation of this submittal the above document will automatically be locked.


Activities
Approvals - All Workspace Approvals
New Submittal
Send
Select Project * 111
To* Yogesh Gadilkar(McLaren Software)
For Comment Puneet Garg(McLaren Software)
For Information karthikeyan vaidyanathan(McLaren Software)
Reply Due By * 29/03/17
Keyword
Subject * release plan
Issued Information *
the release was successful and we have solved many of the defects.
Attachments *
Add
Remove
Reference
Title
Revision
Status
1
1.pdf



Approvals help in seeking permission for proceeding correctly during the project. While creating an approval we test whether the mandatory fields are filled or not, there must be at least one attachment and whether the approval is sent to the intended user.

3.11 Table Specifications

Application User Master		
Columns	**Datatype**	**Constraints**
Id	**Int(3)**	**Pk**
first_name	**Varchar (20)**	
last_name	**Varchar (20)**	
Login	**Varchar (20)**	
Password	**Varchar (20)**	

Company Master		
Columns	**Datatype**	**Constraints**
Company_Id	**Int(3)**	**pk**
Company_name	**Varchar (100)**	
Company_type	**Varchar (100)**	

Project Master		
Columns	**Datatype**	**Constraints**
Project_Id	**Int(3)**	**pk**
Name	**Varchar (100)**	
Status	**Varchar (100)**	

Document Master		
Columns	**Datatype**	**Constraints**
Doc_Id	**Int(3)**	**pk**
Name	**Varchar (100)**	
Size	**int (5)**	

Document Category		
Columns	**Datatype**	**Constraints**
cat_Id	**Int(3)**	**pk**
Name	**Varchar (100)**	
Doc_id	**int (3)**	**fk**

Document upload		
Columns	**Datatype**	**Constraints**
upload_Id	**Int(3)**	**pk**
Target_folder	**Varchar (100)**	
Doc_id	**int (3)**	**fk**

Message Master		
Columns	**Datatype**	**Constraints**
message_Id	**Int(3)**	**pk**
subject	**Varchar (100)**	
date	**Date (5)**	

Notice		
Columns	**Datatype**	**Constraints**
notice_Id	**Int(3)**	**pk**
Sent_date	**Date (5)**	
Message_id	**int (3)**	**fk**

Attachment		
Columns	**Datatype**	**Constraints**
attachment_Id	**Int(3)**	**pk**
Size	**int (5)**	
Message_id	**int (3)**	**fk**

Approval Master		
Columns	**Datatype**	**Constraints**
app_Id	**Int(3)**	**pk**
date	**Date(5)**	
Attachment_size	**int (5)**	

Approval Status		
Columns	**Datatype**	**Constraints**
Status_id	**Int(3)**	**pk**
Name	**Varchar (100)**	
app_Id	**int (3)**	**fk**

Approval Comment		
Columns	**Datatype**	**Constraints**
commment_Id	**Int(3)**	**pk**
Comment_number	**int (5)**	
app_Id	**int (3)**	**fk**

3.11 Test Procedures & Implementation

- **Functional testing:**

Functional Testing is a type of software testing whereby the system is tested against the functional requirements/specifications.

Functions (or features) are tested by feeding them input and examining the output. Functional testing ensures that the requirements are properly satisfied by the application. This type of testing is not concerned with how processing occurs, but rather, with the results of processing.

During functional testing, Black Box Testing technique is used in which the internal logic of the system being tested is not known to the tester. Functional testing is normally performed during the levels of System Testing and Acceptance Testing.

Typically, functional testing involves the following steps:

1) Identify functions that the software is expected to perform.
2) Create input data based on the function's specifications.
3) Determine the output based on the function's specifications.
4) Execute the test case.
5) Compare the actual and expected outputs.

- **Regression testing:**

Regression means retesting the unchanged parts of the application. Test cases are re-executed in order to check whether previous functionality of application is working fine and new changes have not introduced any new bugs. This test can be performed on a new build when there is significant change in original functionality or even a single bug fix.

This is the method of verification. Verifying that the bugs are fixed and the newly added features have not created in problem in previous working version of software.

Testers perform functional testing when new build is available for verification. The reason of this test is to verify the changes made in the existing functionality and newly added functionality. When this test is done tester should verify if the existing functionality is working as expected and new changes have not introduced any defect in functionality that was working before this change. Regression test should be the part of release cycle and must be considered in test estimation. Regression testing is usually performed after verification of changes or new functionality. But this is not the case always. For the release taking months to complete, regression tests must be incorporated in the daily test cycle.

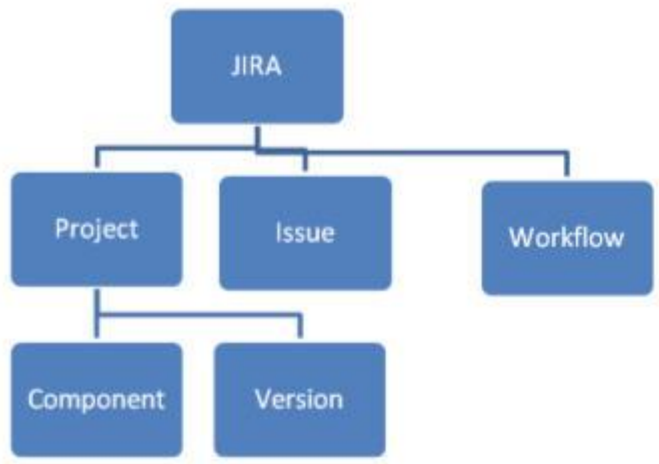
- **Smoke testing:**

Smoke testing is done for the software in order to verify that the software is stable enough for further testing. It has a collection of written tests that are performed on the software prior to being accepted for further testing. Smoke testing touches all areas of the application without getting too deep, tester looks for answers to basic questions like, “Does the application window opens”, “Can tester launch the software?” etc.

The purpose is to determine whether the application is stable enough so that a more detailed testing can be performed. A subset of planned test cases is decided which covers the main functionality of the software, but does not bother with finer software component details. Smoke testing is done by testers before accepting a build for further testing.

JIRA Tool:

- It is a Defect tracking/ Project management tool.
- Software project development team, QA teams uses JIRA for tracking defects.
- JIRA in its entirety is based on 3 concepts:



1) **Issue:** Every task, bug, enhancement request; basically anything to be created and tracked via JIRA is considered an Issue.
2) **Project:** A collection of issues.
3) **Workflow:** A workflow is simply the series of steps an issue goes through starting from creation to completion.

Priority levels of bugs:

- **Blocker:**

  Blocks development and/or testing work, production systems not running.

- **Critical:**

  Crashes, loss of data, severe memory leaks, security breach, etc.

- **Major:**

  Major loss of product function.

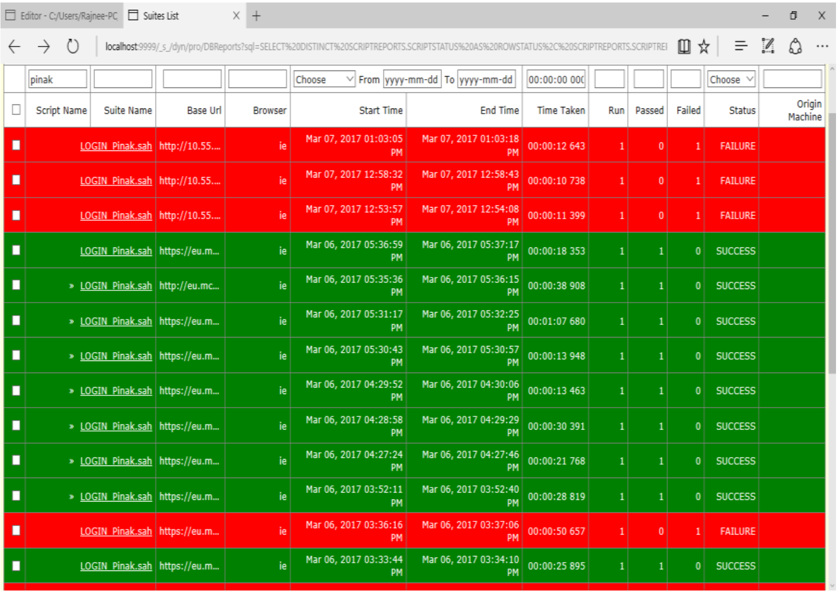
- **Minor:**

  Minor loss of product function, or other problem where easy workaround is present.

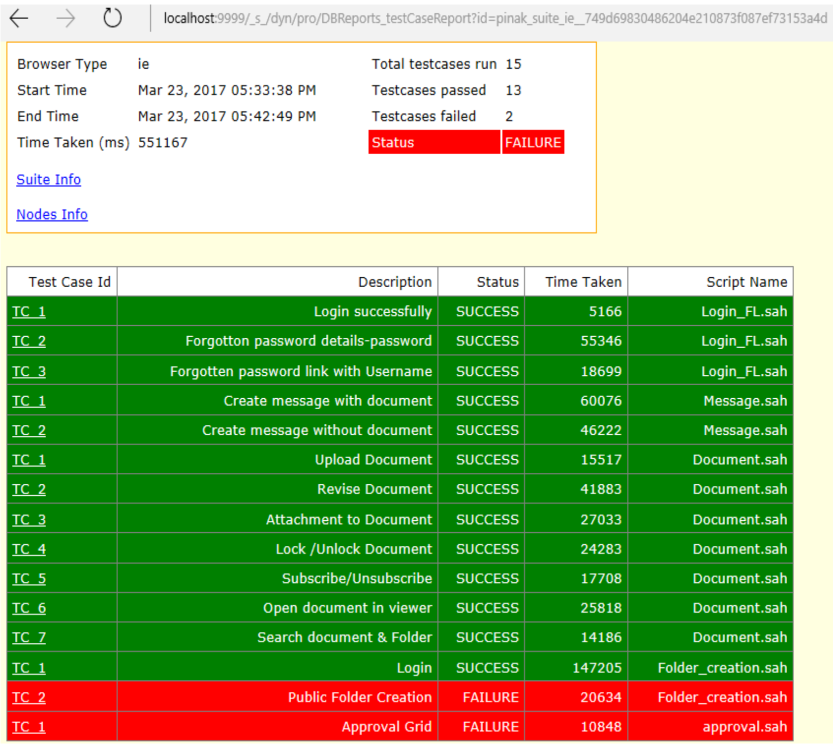
- **Trivial:**

  Cosmetic problem like misspelt words or misaligned text.

(1) Test Case Execution Log



	Script Name	Suite Name	Base Url	Browser	Start Time	End Time	Time Taken	Run	Passed	Failed	Status	Origin Machine
		LOGIN_Pinak.sah	http://10.55....	ie	Mar 07, 2017 01:03:05 PM	Mar 07, 2017 01:03:18 PM	00:00:12 643	1	0	1	FAILURE	
		LOGIN_Pinak.sah	http://10.55....	ie	Mar 07, 2017 12:58:32 PM	Mar 07, 2017 12:58:43 PM	00:00:10 738	1	0	1	FAILURE	
		LOGIN_Pinak.sah	http://10.55....	ie	Mar 07, 2017 12:53:57 PM	Mar 07, 2017 12:54:08 PM	00:00:11 399	1	0	1	FAILURE	
		LOGIN_Pinak.sah	https://eu.m...	ie	Mar 06, 2017 05:36:59 PM	Mar 06, 2017 05:37:17 PM	00:00:18 353	1	1	0	SUCCESS	
	»	LOGIN_Pinak.sah	http://eu.mc...	ie	Mar 06, 2017 05:35:36 PM	Mar 06, 2017 05:36:15 PM	00:00:38 908	1	1	0	SUCCESS	
	»	LOGIN_Pinak.sah	https://eu.m...	ie	Mar 06, 2017 05:31:17 PM	Mar 06, 2017 05:32:25 PM	00:01:07 680	1	1	0	SUCCESS	
	»	LOGIN_Pinak.sah	https://eu.m...	ie	Mar 06, 2017 05:30:43 PM	Mar 06, 2017 05:30:57 PM	00:00:13 948	1	1	0	SUCCESS	
	»	LOGIN_Pinak.sah	https://eu.m...	ie	Mar 06, 2017 04:29:52 PM	Mar 06, 2017 04:30:06 PM	00:00:13 463	1	1	0	SUCCESS	
	»	LOGIN_Pinak.sah	https://eu.m...	ie	Mar 06, 2017 04:28:58 PM	Mar 06, 2017 04:29:29 PM	00:00:30 391	1	1	0	SUCCESS	
	»	LOGIN_Pinak.sah	https://eu.m...	ie	Mar 06, 2017 04:27:24 PM	Mar 06, 2017 04:27:46 PM	00:00:21 768	1	1	0	SUCCESS	
	»	LOGIN_Pinak.sah	https://eu.m...	ie	Mar 06, 2017 03:52:11 PM	Mar 06, 2017 03:52:40 PM	00:00:28 819	1	1	0	SUCCESS	
		LOGIN_Pinak.sah	https://eu.m...	ie	Mar 06, 2017 03:36:16 PM	Mar 06, 2017 03:37:06 PM	00:00:50 657	1	0	1	FAILURE	
		LOGIN_Pinak.sah	https://eu.m...	ie	Mar 06, 2017 03:33:44 PM	Mar 06, 2017 03:34:10 PM	00:00:25 895	1	1	0	SUCCESS	



Browser Type	ie	Total testcases run	15
Start Time	Mar 23, 2017 05:33:38 PM	Testcases passed	13
End Time	Mar 23, 2017 05:42:49 PM	Testcases failed	2
Time Taken (ms)	551167	Status	FAILURE

Suite Info

Nodes Info

Test Case Id	Description	Status	Time Taken	Script Name
TC_1	Login successfully	SUCCESS	5166	Login_FL.sah
TC_2	Forgotton password details-password	SUCCESS	55346	Login_FL.sah
TC_3	Forgotten password link with Username	SUCCESS	18699	Login_FL.sah
TC_1	Create message with document	SUCCESS	60076	Message.sah
TC_2	Create message without document	SUCCESS	46222	Message.sah
TC_1	Upload Document	SUCCESS	15517	Document.sah
TC_2	Revise Document	SUCCESS	41883	Document.sah
TC_3	Attachment to Document	SUCCESS	27033	Document.sah
TC_4	Lock /Unlock Document	SUCCESS	24283	Document.sah
TC_5	Subscribe/Unsubscribe	SUCCESS	17708	Document.sah
TC_6	Open document in viewer	SUCCESS	25818	Document.sah
TC_7	Search document & Folder	SUCCESS	14186	Document.sah
TC_1	Login	SUCCESS	147205	Folder_creation.sah
TC_2	Public Folder Creation	FAILURE	20634	Folder_creation.sah
TC_1	Approval Grid	FAILURE	10848	approval.sah

(2) **Defect Metrics**

Def ID	TC ID	Def_Title/ Summary	Def_Description (Steps to reproduce)	Priority	Defect Status	Comment
Dfct_001	Lg_001	Forgotten password link with Username	1. Go to FusionLive login page 2. Click on 'Forgotten Login Details' link 3. Select Username option 4. Select Checkbox for With email 5. Enter valid email id 6. Click on submit button 7. Verify user should receive username on provided email id	P1	Resolved	

Dfct_002	Lg_005	Password Policy	1. Go to FusionLive login page 2. Click on 'Forgotten Login Details' link 3. Select Username option 4. Select Checkbox for With email 5. Enter valid email id 6. Click on submit button 7. Verify user should receive username on provided email id 8. Follow password policy for generating a new password.	P1	Resolved	Any password from previous 3 passwords is not allowed.

Dfct_003	Capp_003	Create Approval Mandatory fields	1. User1 logs in to Fusionlive>>Goes to Activities area and selects Approval tab 2.Click on New button 3. Select user2 in assignee To(link), user3 in for comment (auto suggest) fields 5. Add attachments from documents area 6.Click on Send button. 7. Verify that the Approval is created successfully and received by recipient with attached document	P1	Closed	Approvals can’t be created without an assignee and at least one attachment.

Dfct _004	CM sg_0 01	Create Message: Add Subject	1. User1 logs in to Fusionlive>>Goes to Activities area and selects Messages tab 2.Clicks on New button 3. Adds user2 in To(link), user3 in CC(auto suggest) field with a Subject. 4. Click on Send button. 5. Verifies that the message is created successfully and received by the recipient.	P1	Open	A message can’t be created without a message.

4.1 User Manual:

User can access FusionLive through three different URLs with respect to his region:

- US environment: https://us.mclarenonair.com
- EU environment: https://eu.mclarenonair.com
- UAE environment: https://ae.mclarenonair.com

Online help is available for the application.

4.2 Operations Manual / Menu Explanation:

Folder Structure

The FusionLive folder structure consists of workspace folders, sub-folders and sub-projects. With appropriate permissions, you can search these folders and mark ones of special interest as favourite for quicker access in the future. You can also search for folders, and save commonly performed searches.

Creating a New Folder

If you have workspace administrative rights and your workspace has the folder administrator role enabled, you can add a new project folder into the structure. This folder is the root, or parent, folder in which all subsequent associated folders and files are inserted.

Creating a public folder

A public folder can be created and accessed by any user of FusionLive within that workspace.

1) Open the Documents page.
2) Select the workspace folder in the folder structure.
3) Press the Create Folder button on the navigation pane.
4) Enter the name of the folder in the text box.
5) Press Create.

Creating a secure folder

Secure folders can only be accessed by users that have the specified permissions. All FusionLive users have the ability to create a secure folder.

1) Open the Documents page.
2) Select the workspace folder in the folder structure.
3) Press the Create Folder button on the navigation pane.
4) Enter the name of the folder in the text box.
5) Check the Secure Folder checkbox.

Links

The document has a link or is a link document to a document elsewhere in the file structure.

Has Link: The document has a link which is present in another (usually more accessible) area of the workspace.

Is Link: A link document pointing to a document elsewhere (often in a secure folder) in the workspace.

Document format Indicates the file format of the document. For example: Microsoft Word, PDF.

6) Browse the workspace users that will have access rights to this folder and check their associated checkbox. You can filter the user list by user, group or all users. You can also search for a user by entering their name and company into the appropriate textboxes at the top of the workspace user list.
7) Press the Add button under the selected permission to add users to this category.
8) You can remove users from a permission category by pressing the Remove button in under that category.
9) Continue adding users to permission categories, then press
10) Create.

Creating a child folder

Folders contained within a parent folder can take on similar security aspects to that of their parent.

1) Open the Documents page.
2) Select the parent folder to insert the folder into.
3) Press the Create Folder button on the navigation pane.
4) Enter the name of the folder in the text box.
5) If you wish to make this a secure folder, check the Secure Folder checkbox.
6) To inherit the same permissions as the parent folder, check the Inherit Rights from Parent Folder checkbox, otherwise specify the user rights.
7) Press Create.

Administering Folder Access Rights

If you are a folder administrator with workspace administrator rights, you can add administer access rights to a secure folder.

1) Open the Documents page.
2) Select the secure folder from the folder structure.

3) Press Administer access right for a folder on the navigation pane.
4) Press the Add button under the selected permission to add users to this category.
5) You can remove users from a permission category by pressing the Remove button in that category.
6) Continue adding users to permission categories, then press Apply.

Renaming A Folder

If you are a folder administrator with workspace administrator rights, you can rename a folder.

1) Open the Documents page.
2) Select the folder you wish to rename.
3) Enter the new name into the Enter Folder Name textbox.
4) Press Rename.

Moving A Folder

Users that have contributor access rights to a folder are able to move them.

1) Open the Documents page.
2) Select the folder you wish to move.
3) Press the Move a folder button on the navigation pane.
4) Browse the folder structure and select the folder you wish to relocate to.
5) Press Move.

Deleting A Folder

A folder can only be deleted by the creator or by a workspace administrator. Folders must be empty and not within a favourites list in order for them to be deleted. In order to delete a parent folder you must delete any child folders first.

1) Open the Documents page.
2) Select the folder you wish to delete.

3) Press the Delete a folder button on the navigation pane.
4) Press Yes.

Folder Action History

The Folder Action History displays audit information of what actions were performed on a folder and by whom.

1) Open the Documents page.
2) Select the folder of which you wish to review the action history.
3) Press the Folder Action History button on the navigation pane.
4) You can export this action history to a Microsoft Excel spreadsheet by selecting an Export type from the Export drop-down menu.
5) Press Cancel on the Folder Action History when you have finished.

Searching Folders

You can perform a quick search of the folders within the document folder structure. For a more in-depth search to locate documents or content:

1) Enter the full or partial name of the folder in the Search Folder text box in the navigation pane. For example, Alpha to locate Project Alpha.
2) Press Enter on your keyboard.

Favourites

The Documents area allows you to access and modify your favourite searches as well as create favourite folders to quickly access at a later date.

Adding to favourites

Folders that are frequently used can be marked as a favourite.

1) Open the Documents page.
2) Select the folder you wish to favourite.
3) Press the Add favourite button.

Favourite searches

The favourite searches folder holds a list of the searches you have marked as a favourite from a search manager for this workspace. You can run these searches from this folder.

1) Open the Documents page.
2) Select the Favourite searches.
3) To run a search, click the name of the search.
4) To edit a search, click on the magnifying glass icon associated with the search, then press Edit.
5) To delete a favourite search, click on the magnifying glass icon associated with the search, then press Remove.

Favourites folder

The folders you have marked as a favourite are displayed within the Favourites folder.

1) Open the Documents page.
2) Select the Favourites folder.

3) Click on the folder name to open that folder and display its contents.

Sub-projects

Note Sub-projects are only available when the Programme Management module is enabled.

You can create sub-projects within your folder structure to help organize programmes of work within the larger project. Sub-projects allow teams of nominated users to work on specified folders and perform tasks.

Creating a Sub-project

Project templates are created by workspace administrators and one of these templates, combined with project roles and attributes, is used as the basis for your sub-project.

1) In the folder structure, select the root folder with which you want to associate the sub-project.

2) Press the Subproject button in the navigation pane.
3) Select the Project Template that you want to base your sub-project on, then press Next.
4) Provide the sub-project with a unique Code and Name and give a short Description.
5) Choose whether the status of the project is initially Active or Inactive.
6) Enter a Start Date for the project.
7) Complete any Project Specific Attribute fields then press Next.
8) In the Setup Participants page, add users to the Administrator, Contributor and Viewer categories. These users form your project Team.
9) When you have completed your team, press the Create button. The folder icon now changes to a Project Folder icon.

Managing a Sub-project

You can view and manage the details of a sub-project.

1) To do this select the sub-project you want to edit in the folder tree and press the Edit Project Details button.

Display project details

You can display a number of panes each containing useful project information.

1) In the Project Details page, expand the Projects Menu and select which panes you want to view.
2) Press Done.

Edit project details

1) To edit the basic project details, press the Edit Project Details button.
2) Edit the contents of the appropriate fields, then press Update.

Delete project

1) To delete a project, press the Delete button in the Project Details page.

Move project

1) To move a project to a different location in the folder tree, press the Move button in the Project Details page.
2) Choose a new location in the folder tree and press Move.

Edit participants

The users directly associated with the project are displayed in the Project Participants pane, along with their permission within the project.

1) To add or remove direct participants press the Edit Participants button.
2) Add or remove users to or from the Administrator, Contributor and Viewer categories.
3) Press Save.

Edit roles

Users may also be associated with the project via roles. These are displayed in the Project Roles pane.

1) To add a new role to the project, choose it from the Select Role To Add drop-down menu and press the Add To Project button.
2) To add or remove participants from a role, select the role and press the Edit Role button.
3) Add or remove users to or from the Assigned User/Group, Role Managers/Assistants and Role Viewers categories.
4) Press Save.

View history

The Projects History pane allows you to access the project history for the sub-project.

1) To view the history, click on the Preferences icon.
2) You can filter the history according to Log type and Folder type, if required.

Edit tasks

Tasks associated with the sub-project are displayed in the Project Tasks pane.

1) Open the Project Tasks pane to view the tasks, along with their priority, phase, dates and to whom they are assigned.
2) A number of task actions are available to you. However, from the Project Details page you can also manage the task flow by Fast Forwarding or Rewinding the project. Fast Forward allows you select current tasks to close so that tasks that depend on their completion can begin. Rewind allows you step back and reopen closed tasks. Any dependent tasks cannot be worked on until the rewound tasks are closed again.

View comments

1) Open the Project Comments pane to view any comments made about the sub-project.
2) To print these on a local printer, press Print.

Uploading and Download Documents

Uploading Documents

Within the Documents area, you can upload documents into categories within a folder. This ensures all relevant documentation of the same type is located together. Each set of documents within the category are divided into unique packages.

To upload documents into a category:

1) Open the Documents page.
2) Select the folder into which you wish to insert documents.
3) Press Upload from the menu bar.
4) Select Document from the menu, then select the category to upload to.
5) Press the Add Documents button.
6) Browse your local drive for the documents you wish to upload. Press Open.
   - Select File: Uploads the newly revised document version into the document file.

- Associate Content: Associates document with a pre-registered placeholder in the file system.
- Add Documents: Uploads documents from your local drive into the selected category within a folder.
- Attachments: Supporting documents related to the main document. Attachments do not appear in the document list, but are accessed through the main document.
- Add Attachments: Uploads an attachment file to a selected document.
- Remove Documents: Deletes the specified documents from the category and folder.
- Package Name: The name of the package used to group these documents.
- Filename: The original filename of the document.

- Revision File: The name of the newly revised document.
- Reference: A unique reference number used to identify the document.
- Title allows you to specify a different name for a document.
- Revision: Allows you to indicate the revision number of a document.
- Status: Indicates the status of a document. Due Date Gives the date the task for this document needs to be completed.
- Upload: Uploads the documents into FusionLive under the specified location.
- Upload Later: Saves the documents in FusionLive so they can be uploaded at a future date.
- Add Activity: Allows you to perform an activity on documents such as sending it in a message or a transmittal.

7) Enter a name for the package into the Package Name textbox. Otherwise, leave it blank and a default name will be created comprising the first document's name and the time stamp.

8) Fill in the required fields for the category.

9) Choose whether to upload the documents now or later by pressing the appropriate button. Press Upload to insert the files in the chosen folder location.

10) Press Done in the Upload Monitor window when the upload is complete.

    You can also upload by dragging and dropping multiple documents from your desktop to FusionLive. When doing this for the first time, the document will be uploaded to the first active category of the workspace. When uploading, the category into which the upload is being inserted is saved as a stored category. After the first upload, all future dragged and dropped uploads will be entered into the stored category.

Note: You will have the ability to switch category before saving the documents.

Revising documents

FusionLive provides the ability to insert documents directly and create a new version of a document.

Note Documents uploaded using restricted categories cannot be revised.

1) Open the Documents page.
2) Select the folder in which the documents are held.
3) Check the boxes alongside the documents you wish to revise.
4) Go to the Upload menu and select Revise.
5) Check the box associated with a document then press Select File.
6) Browse your local file system for the new revision of that document. Press Open.
7) Repeat this for each document being revised.

8) If necessary, amend any metadata for the documents.

9) Press Upload.

Upload audit

The upload audit displays the upload history of the document packages into the workspace. Upload audit gives the status of the documents to indicate whether or not they were uploaded successfully.

- Uploaded - the documents were uploaded successfully into the FusionLive workspace.
- Ready - the documents have been saved as a draft and can be uploaded at a later date.
- Failed - the document was not uploaded into the FusionLive workspace.

Uploading documents

You can upload documents directly to FusionLive from the Upload audit screen.

1) Open the Documents page.

2) Press Upload audit from the Upload menu in the workspace area.
3) Select a document that has been set as Ready.
4) Press the Associate Content button then browse your local file system for the document that this metadata refers to.
5) Press Upload.
6) Choose whether to upload the documents now or later by pressing the appropriate button.
7) Press Done in the Upload Monitor window when the upload is complete.

Modify upload packages

You can modify packages that are in the Ready or In Progress state.

1) Open the Documents page.
2) Press Upload audit from the Upload menu in the workspace area.
3) Click a Ready or In Progress package name.
4) Amend any details necessary.
5) Press Upload.

Marking a package as failed

Packages in the upload audit that are marked as In Progress can be marked as Failed.

Note: Packages with Ready or Uploaded status cannot be marked as failed.

1) Open the Documents page.
2) Press Upload audit from the Upload menu in the workspace area.
3) Select the document packages you wish to mark as Failed.
4) Press Mark As Failed.

Deleting documents

You can delete document packages directly from the upload audit screen. It enables you to remove all associated documents within that package.

1) Open the Documents page.
2) Press Upload audit from the Upload menu in the workspace area.
3) Select the document packages you wish to delete.

4) Press Selected from the Delete menu.
5) Alternatively, you can delete all document packages or those from a specified timeframe. Press the Delete button.
6) Select the type of deletion you wish to carry out.

Downloading Documents

FusionLive allows you to download documents onto your local file system, providing you have the appropriate permissions to access them. To reduce the chance of out-of-date or incorrect versions of a document being displayed, FusionLive allows you to lock a document before downloading it so other users cannot modify it until you unlock it. Documents can be locked outside of the download process in the workspace view to ensure currently downloaded documents or future documents cannot be revised.

To download documents:

1) Open the Documents page.

2) Select the folder that contains the documents.
3) Check the box associated with the documents you wish to download.
4) Press the Download button.
5) The name of the saved file is comprised of a combination of document metadata:
   - Reference
   - Title
   - Filename
   - Filename and Title

Select the appropriate choice from the drop-down menu.

6) You can add the revision of the document to the end of the saved file name by checking the Append Revision box.
7) You can add the status of the document to the end of the name by checking the Append Status box.

8) If you wish to lock the version of this document in the workspace so no revisions can be made, press the Lock button.
9) Press Download.

Registering Document Placeholders

You can create a placeholder for documents that are expected to be uploaded in the future by providing the metadata details. Placeholders for documents that still need to be uploaded are indicated in italics within a folder.

Note: The registration feature is only available if it is active within the workspace.

To register documents:

1) Open the Documents page.
2) Select the folder in which you wish to register documents.
3) Select New from the Register menu.
4) Select the category for the documents.

5) Enter the number of documents you wish to register in the Number of Documents textbox.
6) Enter the metadata for the mandatory document fields (for example, Reference or Title).
7) Enter any additional metadata.
8) Press the Done button.
9) Select whether or not to send this information in a message to selected workspace users.

Adding content to registered documents

Users can register document details within a workspace without uploading the actual documents. When the documents are ready, they can be uploaded. This is called adding content.

1) Open the Documents page.
2) Select the folder that contains the registered documents.

3) Select the documents to revise by checking the box associated with them.

- Number of Documents: Determines the number of documents that will be registered.
- Ok: Confirms the number of documents that will be registered. Add one document: Adds an additional document for registering.
- Remove one document: Removes a document from the list.
- Bulk-import: Provides metadata placeholders for documents yet to be inserted.
- Registration template allows you to download the template that defines the metadata types that should be provided when registering a document.
- Remove Pre-register: Documents Removes the selected documents from the registration list.

- Revision allows you to amend metadata, upload attachments to a document or remove documents from the workspace.
- Add content: Allows you to associate and upload a document to a pre-registered document.

4) Select Add content from the Register menu.
5) Select a registered document.
6) Press Select File and browse your local file system for the document that the registration information associates with. Press Open.
7) Repeat this process for each document in the Add Content workspace view.
8) If necessary, amend any metadata for the documents.
9) Choose whether to upload the documents now or later by pressing the appropriate button.
10) If uploading now, you can choose to send the documents to the necessary.

Revising registered documents

1) Open the Documents page.
2) Select the folder you wish to revise documents.
3) Select the documents to revise by checking the box associated with them.
4) Select Revision from the Register menu.
5) To attach a file to a document, check the box associated with the document then press Add Attachments. Browse your local file system for the file then press Open.
6) Amend any document details.
7) Choose whether to upload the documents now or later by pressing the appropriate button.

Downloading a registration template

The Registration template allows you to enter document metadata values as placeholders for future document uploads.

1) Open the Documents page.
2) Select the folder that contains the registered documents.

3) Select Registration Template from the Register menu.
4) Click on the downloaded file in pop up browser.
5) Makes sure to enable editing in the Excel sheet to enter the values.
6) Save this Excel sheet under an informative name.

Using Bulk-Import

Bulk-import allows you to upload a batch of placeholder metadata for documents using the registration template.

Note: This will not upload documents into FusionLive, only placeholder metadata. Use Add Content to add documents to registered documents

1) Open the Documents page.
2) Select the folder that you wish to insert the document placeholder metadata into.
3) Select Bulk-import from the Register menu.

4) Press Choose File and locate the registration template file with the required metadata from your local file system.
5) Press Import.
6) Ensure the metadata is correct.
7) You can add or remove rows of data as needed. To add rows, enter the number of rows you wish in the Number of Documents text box and press the Ok button. Alternatively press the Add one document button to add a row at a time. Enter the metadata and press Apply.
8) To remove a row, check the box associated with the row you wish to remove, then press the Remove one document button. Alternatively, press Remove Pre-register Documents to remove selected documents or all of them.
9) Press Registration template to download the metadata values in Excel format.
10) Press Bulk-import to import another registration template with document metadata values.

11) Press Done.

12) Select whether or not to email this metadata to recipients.

Document Actions

Document Actions allows you to perform operations on documents within a folder.

Note: Only document actions available to you will be selectable.

Within the Document Actions you can perform the following:

Lifecycle: Change the document lifecycle state.

- Attachments: Add supporting documents related to the main document. Attachments do not appear in the document list, but are accessed through the main document.
- Viewer: View document using FusionLive Viewer
- Generate COBie Sheet: You can export a BIM model or IFC file to a Microsoft Excel

spreadsheet structured to follow the COBie standard.

- Merge Model: Allows you to merge IFC compliant files using the BIM viewer.
- Info: Displays detailed metadata information about the document.
- Secure Link: Generates a shortcut link to allow external users to access the document.
- Edit Info: Allows you to edit the metadata of multiple documents at once.
- Lock: Locks the document. No changes can be made until it is unlocked.
  - Unlock: Unlocks the document, allowing changes to be made.

Lifecycle

Note: The Lifecycle action is only available when the FusionLive Document Lifecycle (DLC) module is enabled.

You can update the lifecycle status of a document

1) Open the Documents page.

2) Select the folder that contains the document whose lifecycle you want to change.
3) Check the box associated with the desired document.
4) Select Lifecycle from the Document Actions menu.
5) In the Document Lifecycle menu bar expand the Status drop-down menu. The statuses you can select from depend on the current status. Click to select one, then press Next.
6) If the new status has an action associated with it (for example, moving or revising the document), perform the required action.
7) You can notify other users that the document status has changed. Select an option from the dropdown menu, fill in the details, then press Send.

Attachments

Document attachments are documents that are linked to other documents. If a document within a folder contains an attachment, it will display a paperclip icon alongside the document details. Clicking on this icon will display the attachment details. Documents can have multiple attachments which can be revised individually.

To add an attachment to a document:

1) Open the Documents page.
2) Select the folder that contains the document you wish to add an attachment.
3) Check the box associated with the desired document.
4) Select Attachment from the Document Actions menu.
5) Select a category with which to associate this attachment.

Move: Allows you to move the document to another folder location.

Linking: Allows you to link documents to other locations in the file structure.

Delete: Deletes the document from the folder.

Check-Out/Check-In/Cancel Check-Out: Checking out allows you to lock a file and automatically opens it for updating. When

you have finished your updates, checking the document in prompts for a new revision and unlocks the document.

Note: If your workspace only has a single category, this will be used automatically. You will not have to select it.

6) Press Add Attachments.
7) Browse your local system for the attachment then press Open.
8) Enter a title for this attachment by clicking on the Title field.
9) Fill in any other metadata about the attachment in the appropriate fields.
10) Choose whether to upload the documents now or later by pressing the appropriate button.

11) Press Done in the Upload Monitor window when the upload is complete.

Attachment Lifecycle

Note The Lifecycle action is only available when the FusionLive Document Lifecycle (DLC) module is enabled.

You can update the lifecycle status of an attachment to a document (providing you have relevant permissions). This is done via the Approval process

1) Open the Documents page.
2) Select the folder that contains the document with an attachment whose lifecycle you want to change.
3) Click on the Attachment icon and then select only the attachment. Select Approvals from the Activities menu and send the approval to

yourself. Complete the required information and press the Send button.

4) Select the Activities tab, then choose Approvals/Assigned To Me.
5) Tick the check box for the new approval and select Lifecycle from the menu bar.
6) In the Document Lifecycle menu bar expand the Status drop-down menu. The statuses you can selectfrom depend on the current status. Click to select one, then press Next.
7) If the new status has an action associated with it (for example, moving or revising the document), perform the required action.
8) You can notify other users that the document status has changed. Select an option from the dropdown menu, fill in the details, then press Send.

Viewer

This displays the currently selected document in the FusionLive Viewer

Secure link

Secure link provides a secure URL link to the document that is downloaded onto your local machine.

Information

If you have the appropriate permissions, you can view and change a document's details, as well as view various aspects of its history.

Document Information

You can update a document's basic information, document details and upload details.

1) In the Documents page, select the required document.
2) Select Info from the Document Actions menu.
3) Update the information required.
4) Press the Update button.

Version History

The Version History tab lists every version of the current document and allows you to perform a variety of actions.

1) In the Documents page, select the required document.
2) Select Info from the Document Actions menu.
3) If the Version History tab is not open, selected it from the Document Info drop-down menu and press Done.
4) You can perform the following actions on versions of documents:
    - to download a version of the document, select it and press the Download button
    - to delete a version of the document, select it and press the Delete button
    - if the document is a placeholder, you can select it, press the Add Content button and follow the instructions for

- to add a version of the document to your briefcase, select it and press the Add to Briefcase button

Audit History

The Document Information page also contains audit information about everything else that has happened to the document since its creation. This may include its involvement in actions, messages, approvals, print jobs and renditions.

1) In the Documents page, select the required document.
2) Select Info from the Document Actions menu.
3) Click on the Document Info drop-down menu, select the audit tabs that you want to view and press Done. Action History Audit trail of the main events that have happened to the document.
4) You can expand or collapse audit history tabs by clicking on their titles.

Bulk edit information

Since documents of the same category present the same metadata fields, it is possible to select multiple documents and change their metadata information in one place.

1) Open the Documents page.
2) Select several documents belonging to the same category.
3) From the Document Actions menu, select Edit Info.
4) In the Bulk Edit window, make the required changes to the metadata information.
5) You can delete multiple documents too. Check the appropriate boxes to select the documents you want to delete and then select Remove Selected from the Remove Documents menu. To delete all of the documents in the Bulk Edit window, select Remove All from the Remove Documents menu.

6) When you have finished editing the document metadata, press the Update button.

Locking

Documents can be locked to prevent any documents that have been downloaded being revised. You will see a lock icon next to the documents that you have locked. You can see who has locked the document via the document's information area.

1) Open the Documents page.
2) Select the folder that contains the documents you wish to lock.
3) Check the box associated with the desired documents.
4) Select Lock from the Document Actions menu.

Unlocking

Documents can only be unlocked by the user who locked it.

1) Open the Documents page.
2) Select the folder that contains the documents you wish to unlock.

3) Check the box associated with the desired documents.

4) Select Unlock from the Document Actions menu.

Moving

Documents can be moved to another folder, providing that the source and target folders have the same user permissions.

1) Open the Documents page.
2) Select the folder that contains the documents you wish to move.
3) Check the box associated with the desired documents.
4) Select Move from the Document Actions menu.
5) In the Move Documents window, navigate the folder tree to select the destination folder.
6) Press the Move button.

Linking

A link document is a pointer to a document stored elsewhere in the workspace. Most commonly, this enables access to specific documents in secure folders to be given to users who do not have permissions for those folders. Only the linked document can be accessed. When a link is created, the document in the secure folder is said to be have the Has Link property. The publicly accessible link document is said to have the Is Link property. The Link icon on a document indicates which link property it has.

Has Link - the document has a link which is present in another (usually more accessible) area of the workspace.

Is Link - a link document pointing to a document elsewhere (often in a secure folder) in the workspace.

1) Select a document that you want to create a link for.

2) In the Document Actions menu, click on Linking and choose the required linking action. Locate the document you want to link to and press Add.

- Create link: Allows you to link to this document from a document in another location. This document will have the Is Link icon. The other document will have the Has Link icon.
- Attach links to document: Allows you to create a link from another document to this one. The link document is added as an attachment. The link document will have the Is Link icon. You can view the link document by clicking on the Attachment icon.
- Move link: Allows you to move a link document from one folder to another. This is reflected in the Document Links section of the Document Information of both the original document and the link document.

3) Select the Link Type.

4) Press Done.

Deleting

Documents can be deleted from FusionLive by those with the appropriate permissions.

1) Open the Documents page.
2) Select the folder that contains the documents you wish to delete.
3) Check the box associated with the desired documents.
4) Select Delete from the Document Actions menu.
5) Press Yes to confirm the deletion.

Check-Out/Check-In

When you want to update a FusionLive document, checking the document out locks it and automatically opens it for updating. When you have finished your updates, checking the document in prompts for a new revision and unlocks the document. You can cancel a check-out at any time.

1) To check a document out for editing, open the Documents page and select the folder containing the document you want to check out.
2) Check the box associated with the document.
3) From the Document Actions menu select Check-Out.
4) Choose a location on your computer or network to save the document to and press Save.
5) Press Open to open the document for editing.
6) If you change your mind about updating the document, you can remove the check-out lock by selecting Cancel Check-Out from the Document Actions menu.

Note: If a document has attachments and you want to edit these too, you must check them out individually.

On the Documents page a checked out document is identified by a blue Lock icon. You can see who checked a document out by hovering the cursor over this icon.

This information is also added to the document action history.

Once you have finished editing the document, save it on your local computer and check it back in.

1) Open the Documents page, select the appropriate folder and check the box associated with the checked out document.
2) From the Document Actions menu select Check-In.
3) Locate the document to be checked in on your computer or network and press Check In. The lock is removed and the document action history is updated. The document version history now displays the new version of the document

Activities

The Activities menu provides access to the workflow activities to which you have access. Workflow activities area automatic processes which enable you to perform common business functions within your

FusionLive project.

Activities may be of the following types:

- Messages - communications sent to you by other users or by you to them
- RFI - requests for information
- Technical Queries - questions of a technical nature
- Approvals - documents sent by transmittal for approval
- Change Requests - formal requests for change of some item in the project
- Transmittals - documents sent to other users for a particular action to be performed by the recipients
- Create Print Jobs - starts a reprographics print job at an appropriate print facility associated with your project.
- Reviews - PDF documents sent by transmittal for approval
- Distribution - distributes a document amongst a group of users.

- Bespoke Business Processes - workflow activities created specifically for this project

Distribution

Distribution allows you to distribute documents associated with certain document categories to users or groups of users. The recipients and distribution actions are determined according to the category field values set out in a distribution matrix

There are two types of distribution:

- Manual Distribution - allows you to manually distribute documents selected from the workspace folder structure
- Automatic - distributes documents according to the category metadata that was provided when they were uploaded into the workspace folder structure.

Once distribution has begun, each document is marked with a status showing the distribution state of a document:

- Draft - a document that has been created and saved

- Submitted - a document that has been sent to the respective recipients
- Completed - a document that has received a positive status of completion of the task.

Note: Only draft document items can be deleted.

Manual distribution

Manual Distribution allows you distribute documents manually by specifying all of the relevant recipient, document count and activity information.

1) Open the Documents page.
2) In the folder structure locate the documents you wish distribute and select them.
3) From the Activities menu, expand Distribution and select Manual.
4) Add the required recipients and press Apply.
5) The Manual Distribution Matrix allows you to select, for each document, the number of physical copies, whether they are colour or black and white, whether the document should

also be sent digitally and the distribution action/reason for issue. The document code nodes in a new distribution matrix are represented by a X. Click on this to provide the codes for each document being sent to each user.

6) Enter the quantity of copies the recipient will receive in the No of Physical Copies box.
7) If you want the recipient also to receive digital files of the document, select the reason for issue from the Digital Copies drop-down menu.
8) Enter the required distribution action or reason for issue from the Select User Code drop-down menu. You can view what the distribution codes mean by expanding the Legend list.
9) If you want the number of copies to be applied to all documents being sent to this recipient, check the Apply Physical Copies To All box.
10) For the physical copies, choose whether they should be colour or black and white.

11) When your settings are complete, press Update.

12) Repeat this procedure until all recipient and document combinations have distribution codes.

13) Press Save to save the settings you have made. Alternatively, press Save and Quit to close the page for now. Saved distribution jobs remain in the Draft state until they are submitted.

14) You can add additional recipients to the distribution at any time by pressing the Add Recipient(s) button.

15) If you want to label the documents in this distribution as distributed, check the Mark documents as distributed box.

16) When you are ready to distribute the documents, press Submit.

Automatic distribution

Automatic Distribution distributes documents according to the category metadata that was provided when they were uploaded into the workspace folder structure. You do not have to provide any values. If the metadata does not match any valid combination of values set out in the distribution matrix, the documents will not be distributed.

1) Open the Documents page.
2) In the folder structure locate the document you wish distribute and check the box to select it.
3) From the Activities menu, expand Distribution and select Automatic.
4) The distribution matrix contains the names of the standard recipients that the document will be distributed to, however you can add additional users at this time.
5) Press Save to save the settings you have made. Alternatively, press Save and Quit to close the page for now. You can return to it later.
6) Press Submit.

Distribution Manager

The Distribution Manager page displays all current draft and submitted distribution jobs. You can review the distribution jobs in progress and complete them.

1) Open the Documents page.
2) From the Activities menu, expand Distribution and select Automatic Distribution Manager.
3) When a manual distribution job is in the Draft state, you can open it in the Manual Distribution page. To do this, double-click on the Distribution Name. View the details of the distribution and make any changes, if required. If you want to distribute the documents and change the distribution state to Submitted, press the Submit button. Otherwise you can keep the distribution in the draft sate by pressing Save
4) If you want to delete a draft distribution, check the appropriate checkbox to select it and press the Delete button. Note: You can only delete draft distributions.

5) If you want to view the details of a submitted distribution, double-click on the Distribution Name. View the activity and reprographics information by expanding the relevant panes.
6) To view the contents of the transmittal sheet, select a file format from the drop-down menu at the top left of the page and press Open/Download Distribution transmittal.
7) When you are happy that a submitted distribution is correct, select it and press Mark As Complete.

Adding Documents To The Briefcase

Your briefcase area is a collection of documents that you have added for quick access. To add documents to your briefcase:

1) Open the Documents page.
2) Select the folder that contains the documents you wish to add to the briefcase.
3) Check the box associated with the document.
4) Press the Add to briefcase button.

Exporting document metadata

Document metadata can be exported to a Microsoft Excel or CSV format.

To export document metadata to one of these files:

1) Open the Documents page.
2) Select the folder that contains the documents whose metadata you wish to export.
3) Check the box associated with the documents whose metadata you wish to export.
4) Press the Export button.
5) Select from the menu options, the type of export you wish to perform.

BIM model viewer

If your FusionLive system has the BIM module installed, you can view IFC type files via a 3D viewer that allows the opening of IFC compliant documents.

Note: To display the 3D model, your browser should support HTML5 and 3D modeling files should be IFC compliant.

The BIM model viewer allows you to:

- rotate the image
- zoom
- change layer opacity
- show and hide selected layers

1) Open the Documents page.
2) Select a folder that contains the IFC file.
3) Check the box associated with the IFC file you wish to view.
4) Select Viewer from the Document Actions menu. Based on the file type, the viewer will be displayed as a pop up window.

Generate a COBie sheet

You can export a BIM model or IFC file to a Microsoft Excel spreadsheet that is structured to follow the Construction Operations Building Information Exchange (COBie) standard.

You can export an IFC file or BIM model to a COBie sheet from the Documents area. The generated spreadsheet will be saved on your local machine.

Merging IFC models

FusionLive allows you to select multiple IFC files and merge them in the BIM viewer. You can select files from any location within the workspace that, when merged, will create a merged view.

You can add and remove IFC files to and from the merged view as well as currently saved BIM models.

An IFC creator will be notified on the update of an IFC file and is able to choose whether to re-build the merge view.

1) Open the Documents page.
2) Select the folder that the IFC files are contained in.
3) Check the boxes associated with the IFC files.
4) Select Merge Model from the Document Actions menu.

5) To add more IFC files to the model, press Add Documents.
6) Browse the file structure for the folder containing the IFC files.
7) Check the boxes associated with the IFC files.
8) Press Create.

To view these BIM models in a separate browser tab:

1) Open the Documents page.
2) Select the BIM Models folder.
3) Select the IFC file you wish to view.
4) Press View.

You can amend currently saved BIM models at any time providing you have the correct permissions.

1) Open the Documents page.
2) Select the BIM Models folder.
3) Select the IFC file you wish to edit.
4) Press Edit.
5) Make any amendments to the BIM model.

6) Press Save Model.

To delete a saved merged model:

1) Open the Documents page.
2) Select the BIM Models folder.
3) Select the model you wish to delete.
4) Press Delete.

Briefcase

The Briefcase is an area where you can store and access frequently used documents. You can store documents from different workspaces and perform actions on documents from different folders and workspaces in a single step.

The contents of your briefcase are private.

Upload

The Upload menu allows you to revise documents within the same workspace, and create a new version.

Note: Changes made to a document will be updated in the Document module also.

To revise a document:

1) Click on the Briefcase area.
2) Select the folder that the documents are held.
3) Check the boxes alongside the documents you wish to revise.
4) Go to the Upload menu and select Revise.
5) Check the box associated with a document then press Select File.
6) Browse your local file system for the new revision of that document. Press Open.
7) Repeat this for each document being revised.
8) If necessary, amend any metadata for the documents.
9) Press Upload.

Download

FusionLive allows you to download documents onto your local file system, providing you have the appropriate permissions to access them. To reduce the chance of out-of-date or incorrect versions of a document being displayed, FusionLive allows you to lock a document before downloading it so other users cannot modify it until you unlock it. Documents can be locked outside of the download process in the workspace view to ensure currently downloaded documents or future documents cannot be revised. To download documents from the briefcase:

1) Open the Briefcase page.
2) Check the box associated with the documents you wish to download.
3) Press the Download button.
4) The name of the saved file is comprised of a combination of document metadata:
   - Reference
   - Title
   - Filename
   - Filename and Title

   Select the appropriate choice from the drop-down menu.

5) You can add the revision of the document to the end of the saved file name by checking the Append Revision box.
6) You can add the status of the document to the end of the name by checking the Append Status box.
7) If you wish to lock the version of this document in the workspace so no revisions can be made, press the Lock button.
8) Press Download.

Document

The Document menu allows you to perform a subset of the document actions.

The Documents menu allows you to do the following actions:

- Revise
- Attachments
- Edit-Info
- Viewer
- Merge Model

Activity

The Activities menu provides access to the workflow activities to which you have access. Workflow activities are automatic processes which enable you to perform common business functions within your project.

Activities may be of the following types:

- Messages - communications sent to you by other users or by you to them
- RFI - requests for information
- Technical Queries - questions of a technical nature
- Approvals - documents sent by transmittal for approval
- Change Requests - formal requests for change of some item in the project
- Transmittals - documents sent to other users for a particular action to be performed by the recipients

- Create Print Jobs - starts a reprographics print job at an appropriate print facility associated with your project.
- Reviews - PDF documents sent by transmittal for approval
- Distribution - distributes a document amongst a group of users.
- Bespoke Business Processes - workflow activities created specifically for this project

Copy Documents

This allows you to copy documents from one workspace to the current workspace.

Note: You are unable to select multiple documents from multiple workspaces or copy documents within a sub-project.

To copy documents:

1) Click on the Briefcase area.
2) Check the box associated with the documents you wish to copy.
3) Press the Copy Document(s) button.

4) Select the destination folder from the folder tree.
5) Press Next.
6) Select a category to associate with the document.
7) Press Copy Document(s).

Add Documents

Add is another way that you can insert documents from your workspaces into your briefcase.

To add documents:

1) Click on the Briefcase area.
2) Press the Add button.
3) Select the folder that contains the documents you wish to add.
4) Check the box associate with the document in the Available Documents section.
5) Press Add in the Selected Documents section.
6) Press Done.

Remove Documents

Remove allows you to take documents out of the briefcase. This action does not delete the document from the workspace.

To remove documents from briefcase:

1) Click on the Briefcase area.
2) Check the box associated with the documents you wish to remove.
3) Press the Remove button.

Print

Print allows you to print the list of documents that are currently held within your briefcase. This will include all information shown within the briefcase itself. To print the briefcase details:

1) Click on the Briefcase area.
2) Press the Print button
3) Select the print destination and press Print.

Export

Document information can be exported from the Briefcase to a Microsoft Excel or CSV format. To export to one of these files:

1) Click on the Briefcase area.
2) Select the folder that contains the documents whose information you wish to export.
3) Check the box associated with the document information that you wish to export.
4) Press the export button.
5) Select from the menu options, the type of export you wish to perform.

Activities

The Activities page provides access to the activities to which you have access. Activities are automatic processes which enable you to perform common business functions within your FusionLive project. Activities may be of the following types:

- Messages - communications sent to you by other users or by you to them

- Transmittals - documents sent to other users for a particular action to be performed by the recipients
- Approvals - documents sent for approval
- Reviews - PDF documents sent for review and mark up
- RFIs - requests for information
- Technical Queries - questions of a technical nature
- Change Requests - formal requests for change of some item in the project
- Reprographics - enables documents to be printed at your choice of location
- Tasks - workflow-based instructions requiring users to perform some specific action
- Bespoke Business Processes - workflow activities created specifically for this project

Using The Activities Page

1) To open the Activities page click on Activities in the menu bar. Alternatively, you can select a new activity from the Activity Notification list.

Note: Activities may be instigated for a particular document via the document's Activities menu.

2) Each activity is organized according to its activity type in the left hand tree structure. The number of unread activities of each type is displayed.
3) Click on the folders within each activity type to locate the activities that require your attention. When you open a folder or view an activity, it is displayed in a new tab.
4) The number of activities is displayed at the bottom of the page. If there are more activities than fit on to a page, you can use the navigation controls to move forward and backward and to the beginning and end of the pages of the activity type.

Configuring Column Display

The activities in each folder are displayed in rows, and the attributes of each entry are organized into columns.

For each type of activity you can configure the attribute columns that are displayed and choose how to organize the displayed information.

1) To change the display order according to a specific activity attribute, click on the relevant column header. This will organize the activity list according to the contents of that column. Click it again to reverse the order. Alternatively, click the arrow to the right of the column header and select Sort Ascending or Sort Descending.
2) You can add or remove columns. To do this, click on the arrow to the right of a column header and select Columns. Tick the names of columns you want to display. Untick the names of columns you want to hide.

3) In addition to showing the activities as an alphabetized list, you can group the activities according to the attributes contained in a column (for example, messages received organized by company or project). To do this, click on the arrow to the right of a column header and check the Show In Groups box. Click on the arrow to the right of the column header of the attribute you want to group the list by and select Group By This Field.

Due Dates

Some activities may have actions associated with them (for example, messages requiring a reply or documents that need to be approved) that have been given a due date by which you should respond. If that date passes without your performing an appropriate action, that activity will be displayed in red.

Messages

Messages allow FusionLive users to communicate with each other. The Messages activity area is structured into the following folders:

- Received - messages that have been sent to you (your messages inbox)
- Sent - messages that you have sent to other people (your messages outbox)
- Archived - messages that are no longer relevant to the ongoing project and can be archived

View a message

1) To view a message open the Received, Sent or Archived folder and select the message you want to read.
2) You can preview the message contents by expanding the preview pane located at either the bottom or right hand side of the Activities page. You can change the location of the preview pane, or hide it, by selecting from the Preview menu in the Messages toolbar.

3) To open the message fully, click on the Subject link. Alternatively, click on More... in the preview pane. The message details are displayed in a new tab. You can view information about how and to whom the message was distributed by expanding the Distribution information details pane. If there are any attached documents, these are displayed in the Attachments pane
4) When a message is unread, it is displayed in bold. You can remove its unread status either by opening the message or by selecting the message and pressing Mark As Read in the Messages toolbar.

Create a message

1) To send a message to other FusionLive users, press the New button in the Messages toolbar. The New Message tab presents a number of fields to help you determine the message's contents, recipients and behaviour.

Note: Fields marked by an asterisk (*) must be completed.

2) The Message Filter field allows you to filter the potential distribution reach of the message to users who belong to this workspace, to this project or to your company. Click to choose the appropriate option.
3) If your project has sub-projects enabled, choose the sub-project relevant to this message from the Select Project drop-down menu.
4) The To field contains the names of the users who will be the direct recipients of the message. You can populate this field by entering their names directly and selecting from the auto-complete options.

   Do the same for users you want to CC on the message.
5) The pool of users available to receive the message is determined by the selection of Message Filter and Sub-project. This is more

apparent if you click on the To link to open the Select Users window. The Select Users window lists the users and user groups available to receive the message. The list contains workspace Users, External users and user Groups and you can filter the list by selecting one of these options from the Type drop-down menu. Select a user or group in the list and then press the Add button to include them in the To or CC lists, as appropriate. If you want to remove a user from the To or CC lists, select them and press the Remove button. Press the Apply button to finish.

6) If you want the recipients to reply to this message, you can add a date by which the reply should be made. This date will be placed in their calendar. Click on the field next to Reply due date and choose the appropriate date.

7) If you want to hide the addresses of external users to whom a message is sent, check the Hide email out recipient box.
8) If you want the message to carry the high priority tag, check the Priority box.
9) If a message signature has been created for your profile but it is not enabled for automatic inclusion, you can include your signature manually by checking the Include Signature box.
10) In the Subject field, enter the title of the message.
11) Type the message itself in the Message field. FusionLive offers a number of formatting options
12) If you want to attach a document to the message, press the Add button in the Attachments section. In the Select Documents window, navigate to the document folder, select the document and press Add.

You can select further documents to add using the same process. Once you have selected all the documents you want to add, press Done.

Alternatively you can add the contents of a folder as attachments. Press the Add Folder button and select the folder in the folder structure whose contents you want to attach. If the folder contains subfolders, you will need to add these too. Press Done to attach the folder contents.

Note: When folders of documents are attached to a message being sent to an external email address, the folder structure is maintained within the attachment .ZIP file.

You can remove files from your Attachments list by selecting them and pressing Remove.

13) When you have completed the details of your message, press the Send button.

Respond to a message

When you receive a message, you can reply to the sender or to all of the people on the distribution list. You can also forward the message on to other users.

1) To respond to a message, first either select it.
2) To reply to the sender, press the Reply button.
3) To reply to all the people on the distribution list, press the Reply All button
4) To send the message to other users, press the Forward button and enter the names of the users you want to send the message to in the To field.
5) When you have created your response message, press the
6) Send button.

Filing activities

Your sent and received messages are automatically filed in the Sent and Received folders. You also have an archive area into which you can move messages that no longer play an active part in the project. Additionally you can add new folders to create a folder structure in which to organize your messages.

Custom folders

1) To create a new folder in the Messages folder structure, select the folder in which you want create the sub-folder, then press the Create Folder button and give the folder a name.
2) To change the name of an existing folder, press the Rename Folder button and supply the new name.
3) To change the location of a folder, select the folder and press the Move Folder button. Choose a new location and press the Move button.
4) To remove a folder from the structure, select the folder then press the Delete a Folder button.

Moving messages

1) To move a message from one folder to another (for example, from the default Received folder

to a sub-folder) select the message then press the Move button.

2) In the Move Message window, select the folder you want to move the message to.

3) Press the Move button.

Archiving messages and folders

It is good practice to archive messages that no longer play an active part in the project. You can also

archive folders, including their contents.

1) To archive a message, select it and press the Archive button. In the Archive Message(s) window choose the required archive location, then press the Move button.

2) To archive a folder, select it in the folder structure, then press the Archive a Folder button. In the Archive a Folder window choose the required archive location, then press the Archive button.

Reinstating archived messages and folders

1) To reinstate an archived message, select it and press the Restore button. In the Restore Message window choose the required location, then press the Move button.
2) To reinstate an archived folder, select it in the archive structure, then press the Restore a Folder button. In the Restore a Folder window. Choose the required location, then press the Restore button.

Exporting messages

You can export your messages to a format that can be imported into an external system. The export formats

can be:

- Microsoft Excel
- CSV

    1) To export the messages in a particular folder, navigate to the folder and press the Export button.

2) You can either export all of the messages in the folder or only those on the current page. Choose the required combination of output format with one of these options:
    a. Export to Excel - This Page
    b. Export to Excel - All
    c. CSV - This Page
    d. CSV - All
3) The output file is generated. To view it press the Open button.

Message attachments

When messages contain attachments, there are a number of options available from the Attachments pane.

Viewing and filing attachments

1) To view the location of the attachment file in the project folder structure, click on the Folder path link.
2) To view information about the file, press the Info button

3) You can view an attachment either in its native application or using the FusionLive viewer
4) You can move the attachment to your briefcase where you can access it quickly and easily. To do this, select the attachment and press the Add to Briefcase button.
5) To delete an attachment from the message, select it and press the Delete button.

Downloading attachments

1) To download an attachment to your local computer, select it and press the Download button.
2) The name of the saved file is comprised of a combination of document metadata:
   a. Reference
   b. Title
   c. Filename
   d. Filename and Title

Select the appropriate choice from the drop-down menu.

3) You can add the revision of the document to the end of the saved file name by checking the Append Revision box.
4) You can add the status of the document to the end of the name by checking the Append Status box.
5) Press the Download button.

Approvals

The Approvals activity type is a business process workflow which enables documents to be submitted to nominated users for their approval, comment or information. If the documents are circulated singly, the activity is called an approval. If more than one document is associated with the activity, it is known as a submittal package. Document approvals that belong to the same submittal package have the same Submittal Number. You can perform actions or make comments on single document approvals or to the entire submittal package at once.

The Approvals activity area is structured into the following folders:

- Assigned To Me - documents that have been sent to you for approval
- For My Comment - documents that have been sent to you for comment
- For My Information - documents that have been sent to you for information
- Submitted By Me - approvals that have been circulated by you
- All Workspace Approvals - all approvals that have been sent or received in this project workspace.

Filtering the approvals list

To help you find the approval activities of interest quickly, you can filter the contents of a folder by selecting from the following criteria:

- Approval Status - the current status of the approval

- Sub No. - the unique submittal number which links the approval activities of all associated documents
- Reference or Title - the reference or title of the approval
- My Comment - whether you have commented on the approval or whether it is waiting for your comments.
- Your filtering conditions can be any one of these criteria or a combination of several.
  1) To filter an approval folder's contents according to the Approval Status, select the appropriate status from the drop-down menu.
  2) To filter an approval folder's contents according to the submittal number, enter all or part of the number in the Sub No. field.
  3) To filter an approval folder's contents according to its name, enter all or part of the name in Reference or Title field

4) To filter an approval folder's contents according to whether a comment has been made, select as appropriate from the My Comment drop-down menu.
5) When you have entered all your filtering conditions, press the Go button.

Approval actions

There are a number of ways to respond to an approval or submittal. The action you perform will usually be dictated by the reason it was sent to you. That is, if an approval appears in your Assigned To Me folder, you are expected to assess the attached documents for approval. If it appears in your For My Comment folder, you are expected to comment on the document. If it appears in your For My Information folder, you may only be expected to acknowledge that you have received it. However, irrespective of the reason you received an approval, you may want to perform additional actions (for example, commenting on a document received for information). FusionLive allows you to do this.

In addition to commenting and approving actions, there are other actions available which enable you to ensure that the approval process is carried out by the users most equipped to do so.

The action is available when you select an approval include:

- Forward - allows you to forward the document to additional users who you think should be involved in the approval process
- Reassign - allows you to send the document to users who you think are better equipped than yourself to respond to it. Reassigning an approval removes it from your approvals list
- Reopen - allows you to open any closed approval
- Comment - allows you to comment on an approval

- Close Approval - allows you to close an approval
- Comment Submittal - allows you to comment on all the documents in a submittal
- Close Submittal - allows you to close the approval activities for all the documents in a submittal
- Reply With Message - allows you to contact the person who sent you the approval
- Share Result - allows you to communicate the result of the approval process to other workspace users
- Download - allows you to download the approval documents
- Lifecycle - allows you to update an approval's PM lifecycle status Pending Comments Approvals awaiting your comments.

Forward submittal

If there are additional users who you think should be involved in the approval process for the documents in a submittal, you can forward the documents to them.

1) Select the relevant approvals in the approvals list, then press the Forward button.
2) From the Select Project drop-down menu, choose the appropriate sub-project.
3) Click on the Forward To link and, in the Select Users window, add the people you want to forward the documents to. Then press Apply.
4) In the Comment area, tell the user why you're sending the documents to them.
5) The Attachments area displays the documents. You cannot add to or remove these.
6) Press Send.

Reassign approval

If there are users who you think should be involved in the approval process for these documents instead of you, you can reassign the approval to them.

Note: When you reassign an approval to another user, it is removed from your approvals list.

1) Select the relevant approvals in the approvals list, then press the Reassign button.
2) From the Select Project drop-down menu, choose the appropriate sub-project.
3) Click on the Assign To link and, in the Select Users window, add the people you want to reassign the documents to for approval.
4) 4 In the Select Users window, add any additional people you want to reassign the documents to for comment.
5) In the Select Users window, add any additional people you want to inform about the documents.
6) Press Apply.
7) In the Comment area, tell the user why you're sending the documents to them.
8) The Attachments area displays the documents. You cannot add to or remove these.
9) Press Send.

Reopen approval

Sometimes it may be necessary to reassess a closed approval; for example, when an updated version of the document becomes available. Reopening a closed approval and uploading a new document allows you retain the history of the original.

Note: You cannot reopen a submittal package, only individual document approvals.

1) Locate the closed approval you want to reopen. This can done by filtering your All Workspace Approvals folder to display approvals with the appropriate closed status (for example, Accepted or Rejected).
2) Select the approval you want to reopen, then press the Reopen button.

   Note: When you reopen an approval, the project and recipient information cannot be changed.
3) In the Reopen Comment area, tell the user why you’re sending the document to them.

4) Since the purpose of reopening an approval is to reassess the document, a new version must be uploaded. In the Attachments area, press Add and choose the relevant document from the workspace folder structure. Alternatively, you can attach a document from your local computer or network. Press the Upload and Attach button. Select the workspace folder to store the document in and the document category to which it applies. Press the Add Documents button and add the relevant document. When you have finished, press the Upload button.
5) Press Reopen.

Comment on approval or submittal

When you have assessed one or more documents circulated with each approval in a submittal package, you can make a comment and recommend an action for closing the approval. For example, that the documents should be approved. You can comment on approvals individually, or comment on the entire submittal package with a single action.

If advanced approval commenting is enabled, you may add multiple comments.

Comment on approval

You can select a single document approval for comment.

1) Select the approval you want to comment on, then press the Comment button.
2) The document for approval is displayed. You can view the document by clicking on the Title link.
3) When you have assessed the document, choose a status from the Recommended Status drop-down menu (for example, Accepted, Rejected).
4) In the Comment box provide your thoughts about the document and a reason for the status you have given.
5) You can attach additional supporting documents to the approval. In the Attachments area, press

Add and choose the relevant document from the workspace folder structure. Alternatively, you can attach a document from your local computer or network. Press the Upload and Attach button. Select the workspace folder to store the document in and the document category to which it applies. Press the Add Documents button and add the relevant document. When you have finished, press the Upload button.

6) To finish, press the Add Comment button. If Comment Authentication is enabled, you will be asked to enter your FusionLive username and password to complete your comment.

Comment on submittal

You can comment on all of the approvals in a submittal package.

1) 1 Select an approval belonging to a submittal that you want to comment on, then press the Comment Submittal button.

2) 2 The documents associated with the relevant approvals are displayed. You can view a document by clicking on the Title link.
3) 3 When you have assessed the documents, choose a status from the Recommended Status drop-down menu (for example, Accepted, Rejected).
4) 4 In the Comment box provide your thoughts about the documents and a reason for the status you have given.
5) 5 You can attach additional supporting documents to the submittal. In the Attachments area, press Add and choose the relevant document from the workspace folder structure. Alternatively, you can attach a document from your local computer or network. Press the Upload and Attach button. Select the workspace folder to store the document in and the document category to which it applies. Press the Add Documents button and add the relevant

document. When you have finished, press the Upload button.

6) To finish, press the Add Comment button. If Comment Authentication is enabled, you will be asked to enter your FusionLive username and password to complete your comment.

Add Multiple Comments

If the Advanced Approval module is enabled, you can add a list of comments to a document approval.

1) Select the approval you want to comment on, then press the Comment button.
2) When you have assessed the document, choose a status from the Recommended Status drop-down menu. This status will be applied to all of the comments that you create.
3) In the Comment box provide your thoughts about the document.
4) Attach one or more supporting documents to the comment in the Attachments area.

5) To add the comment to the Comments List, press the Add to list button.
6) You can add as many more comments, with or without attachments in the same way.
7) To add the comments list to the approval, press the Add Comment button. If Comment Authentication is enabled, you will be asked to enter your FusionLive username and password to complete your comment.

Rejected Comments

When the assignee of an approval closes it, they choose which of the submitted comments to include in the finalized version. If one of your comments is rejected, you will receive a notification.

1) To view the reason that your comment was rejected, select the relevant approval.
2) Any rejected comments are listed in the My Rejected Comments section. This area details who rejected the comments and their reason for doing so.

Close approval or submittal

When you have assessed the documents circulated with each approval in a submittal package, you can select an action which will close the approval. For example, that you have approved the documents.

Depending on the permissions you have, you can close approvals individually, or close the entire submittal package with a single action. Closing an approval or submittal prevents other users from commenting.

If the Renditions module is enabled and the final approval comment is associated with a rendition template, when the approval or submittal is closed a rendition document will be generated. An approval document's rendition history is part of the audit history in its Document Information page. It can also be found in its View Approval page.

Close approval

You can select a single document approval for closure.

1) Select the approval you want to close, then press Close Approval.
2) The document for approval is displayed. You can view the document by clicking on the Title link.
3) When you have assessed the document, choose the document’s status from the Final Status dropdown menu (for example, Accepted, Rejected).
4) In the Final Comment box provide an explanation for the status you have given.
5) You can choose which comments will be accessible when the approval is closed. Choose whether to publish only your final comment (and any supporting documents) or to publish all comments (with or without supporting documents).
6) Several users may have commented on the document. You can choose which comments will be accessible when the approval is closed.

Choose whether to publish only your final comment (and any supporting documents) or to publish all comments (with or without supporting documents). Alternatively, if the Advanced Approvals module is active, you may individually accept or reject approval comments and, optionally, add an explanation in the Approver Comments box. If you reject a comment then you must include a reason. All accepted comments are published with the approval and can be viewed by the originator of the approval and users who received it For Information when they receive the closure alert.

7) You can attach additional supporting documents while closing the approval. In the Attachments area, press Add and choose the relevant document from the workspace folder structure. Alternatively, you can attach a document from your local computer or network. Press the Upload and Attach button. Select the workspace

folder to store the document in and the document category to which it applies. Press the Add Documents button and add the relevant document. When you have finished, press the Upload button. To finish, press the Finalise Document Approval button. If Final Comment authentication is enabled on the rendition template associated with the Final Comment status you selected, you will be asked to enter your FusionLive username and password to complete your comment.

Close submittal

You can close all of the approvals in a submittal package.

1) Select an approval belonging to a submittal that you want to close, then press Close Submittal.
2) The documents associated with the relevant approvals are displayed. You can view a document by clicking on the Title link.

3) When you have assessed the documents, choose the submittal's status from the Final Status dropdown menu (for example, Accepted, Rejected).
4) In the Final Comment box provide an explanation for the status you have given.
5) Several users may have commented on the document. You can choose which comments will be accessible when the approval is closed. Choose whether to publish only your final comment (and any supporting documents) or to publish all comments (with or without supporting documents). Alternatively, if the Advanced Approvals module is active, you may individually accept or reject approval comments and, optionally, add an explanation in the Approver Comments box.

Note: If you reject a comment then you must include a reason.

All accepted comments are published with the approval and can be viewed by the originator of the approval and users who received it For Information when they receive the closure alert.

6) You can attach additional supporting documents while closing the submittal. In the Attachments area, press Add and choose the relevant document from the workspace folder structure. Alternatively, you can attach a document from your local computer or network. Press the Upload and Attach button. Select the workspace folder to store the document in and the document category to which it applies. Press the Add Documents button and add the relevant document. When you have finished, press the Upload button.
7) To finish, press the Finalize Document Approval button. If Final Comment authentication is enabled for the Final Status

you selected, enter your FusionLive username and password to authenticate your comment.

Approval Alert

When you have closed an approval, you can send an alert to notify users. Selected users will receive the alert via the method specified in their preferences, unless they have specified No Alerts.

1) The originator and other users directly involved in the approval are selected automatically, but you can deselect any users who don’t need to receive the alert.
2) If there are additional users who need to know about the approval, press the Add/Remove Recipients button and select the additional users. These will be added as Additional Recipients.
3) Press the Send Alerts button.

Reply with message

If you need to clarify anything about an approval activity, you can send a message to the person who sent it to you.

Note For full details on sending messages

1) Select an approval in your approvals list and press the Reply With Message button.
2) From the Select Project drop-down menu, choose the sub-project to which the approval applies.
3) The sender's name is already filled in the To box. Add more recipients in the To or CC boxes, if required.
4) In the Message box, type your reply to the sender of the approval.
5) You can attach documents to your reply. In the Attachments area, press Add and choose the relevant document from the workspace folder structure.

Share result

If you have Approval Administrator rights for this workspace, you can share the results of a selected approval with other users in your workspace. The results are delivered to each selected user as an HTML table using their preferred method of contact.

1) Select an approval in your approvals list and press the Share Results button.
2) Press the Add/Remove Recipients button.
3) Select one or more people in the Workspace Users column to receive the approval. Press the Add button to transfer them to the Selected Users list. You can remove users by selecting them in the Selected Users list and pressing Remove. When your list is complete, press Apply.
4) To distribute the report, press Send Alerts.

Download approval document

You can download an approval document to your local computer.

1) Select the relevant approval and press the Download button.
2) The name of the saved file is comprised of a combination of document metadata:
   a. Reference
   b. Title
   c. Filename
   d. Filename and Title

Select the appropriate choice from the drop-down menu.

3) You can add the revision of the document to the end of the saved file name by checking the Append Revision box.
4) You can add the status of the document to the end of the name by checking the Append Status box.
5) Press the Download button.

Lifecycle status

In a PM-enabled workspace, approvals pass through the states of a lifecycle. For approvals that are assigned to or were created by yourself, you can change the PM lifecycle status.

1) In the Assigned To Me or Submitted By Me activities page, select the approval whose status you want to change.
2) Press the Lifecycle button. Select the new status and press Next.
3) You can send a message or create an approval submittal to notify users of the change you have made, or do nothing. Select from the drop-down list and, if required, enter any recipient and other information, then press Finish.

Viewing approvals and submittals details

You can view the details of individual approvals or of the submittals they belong to. To view details of an approval:

1) In the approval list, click on the status of the approval whose details you want to view. The details include:

   a. Approval details - general information about the approval's creation, purpose and status. You can open the document by clicking on the Document link, or view the FusionLive file location by clicking on the Document Folder link.

   b. Comments - the comments that have been made about the approval

   c. Distribution - the history of who the approval has been distributed to

   d. Approval History - a chronological list of everything that has happened to the approval since it was created.

2) A number of actions are available to you from the Approval Details page. To view details of a submittal in the approval list, click on the Submittal No. of the approval whose submittal details you want to view. The details include:
   a. Submittal details - general information about the submittal's creation, purpose and status.
   b. Documents for Approval - a list of the documents associated with the approval.

A number of actions are available to you from the Documents for Approval pane

Viewing and filing approval documents

To view the location of the document file in the project folder structure, click on the Folder path link.

1) To view information about a document, select it then press the Info button

2) To view a document in its native application, click on the Title link. Alternatively, to view it using the FusionLive viewer, select the document and press the Viewer button

3) You can move the attachment to your briefcase where you can access it quickly and easily. To do this, select the document and press the Add to Briefcase button.

Downloading approval documents

1) To download an attachment from the submittal to your local computer, select it and press the Download button.

2) The name of the saved file is comprised of a combination of document metadata:

   a. Reference

   b. Title

   c. Filename

   d. Filename and Title

   Select the appropriate choice from the drop-down menu.

3) You can add the revision of the document to the end of the saved file name by checking the Append Revision box.
4) You can add the status of the document to the end of the name by checking the Append Status box.
5) Press the Download button.

Create an approval submittal

1) To send a submittal package of documents to other FusionLive users for approval, press the New button in the Approval toolbar. The New Submittal tab presents a number of fields to help you determine the submittals contents and recipients.

   Note: Fields marked by an asterisk (*) must be completed.
2) If your project has sub-projects enabled, choose the sub-project relevant to this submittal from the Select Project drop-down menu.

3) The To field contains the names of the users who will be asked to approve the documents of the submittal. You can populate this field by entering their names directly and selecting from the auto-complete options. Do the same for users who will receive the submittal For Comment and For Information.
4) The pool of users available to receive the submittal is determined by the selection of Sub-project. This is more apparent of you click on the To link to open the Select Users window. The Select Users window lists the users and user groups available to receive the submittal. The list contains workspace Users, External users and user Groups and you can filter the list by selecting one of these options from the Type drop-down menu. Select a user or group in the list and then press the Add button to include them in the To, For Comment or For Information lists as appropriate. If you want to

remove a user, select them and press the Remove button.

5) You can add a date by which comments or approvals should be made. This date will be placed in the recipients' calendars. Click on the field next to Reply Due By and choose the appropriate date.
6) Enter a Keyword that will help locate the submittal during a search.
7) In the Subject field, enter the title of the submittal.
8) In the Issued Information field, write some explanatory information for the recipients.
9) If you want to attach a document to the message, press the Add button in the Attachments section. In the Select Documents window, navigate to the document folder, select the document and press Add. You can select further documents to add using the same

process. When you have selected all the documents you want to add, press Done.

10) When you have completed the details of your submittal, press the Send button.

11) Select which of the stakeholders to send alerts about the approval to (by default they are all selected), then press Send Alerts.

Drawbacks & Limitations

- System doesn’t provide keyboard integration
- Right clicked functionality is not provided
- Application is not supported on MAC and Linux OS
- Cannot access application through smart phones
- It has different URL for different regions like UK,US,EU
- There is no Desktop client
- System has some access roles like Workspace Admins, Workspace Contributors, Workspace Viewers, Super Admins, Company Admins which are complicated to understand

Proposed Enhancement

- System will support keyboard integration
- Right clicked functionality will be provided
- User will be able to use application on MAC and Linux OS
- User will be able to use application through smart phones
- More user friendly GUI

Conclusion

Functional as well as non-functional testing is performed on these modules to make this application as quality software. User Interface of the system has been made more user friendly & functions are made easier to operate. There are a number of ways to respond to an approval and messages. The action you perform will usually be dictated by the reason it was sent to you. That is, if an approval appears in your Assigned To Me folder, you are expected to assess the attached documents for approval. If it appears in your For My Comment folder, you are expected to comment on the document. If it appears in your For My Information folder, you may only be expected to acknowledge that you have received it. However, irrespective of the reason you received an approval, you may want to perform additional actions (for example, commenting on a document received for information). Approval Activity allows you to do this.

Documents can be managed in a number of ways and numerous actions can be performed for managing the user's project related data. The issues or bugs found by the automation tool are recorded in JIRA manually. This will be a point to consider for future enhancement where the bugs will be recorded through automation.

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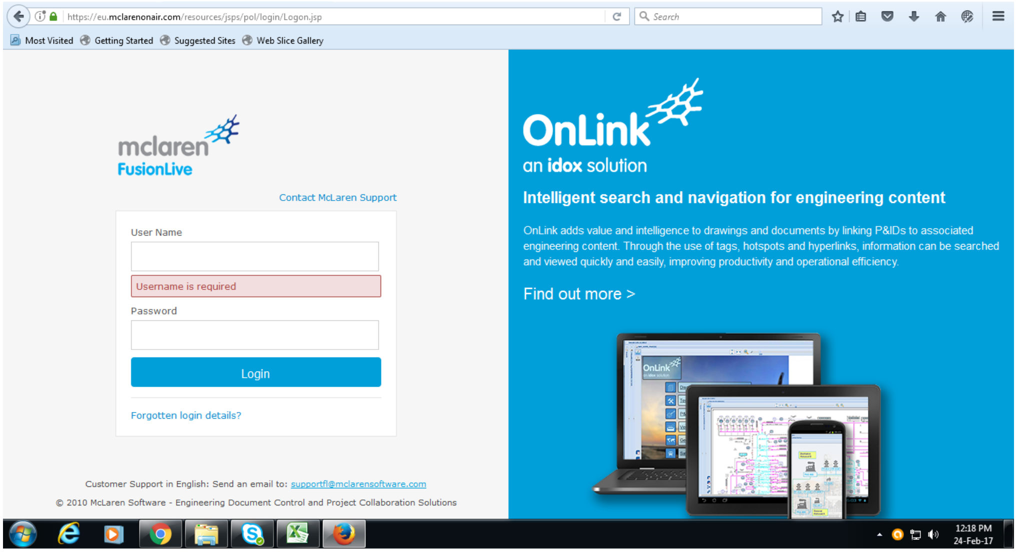
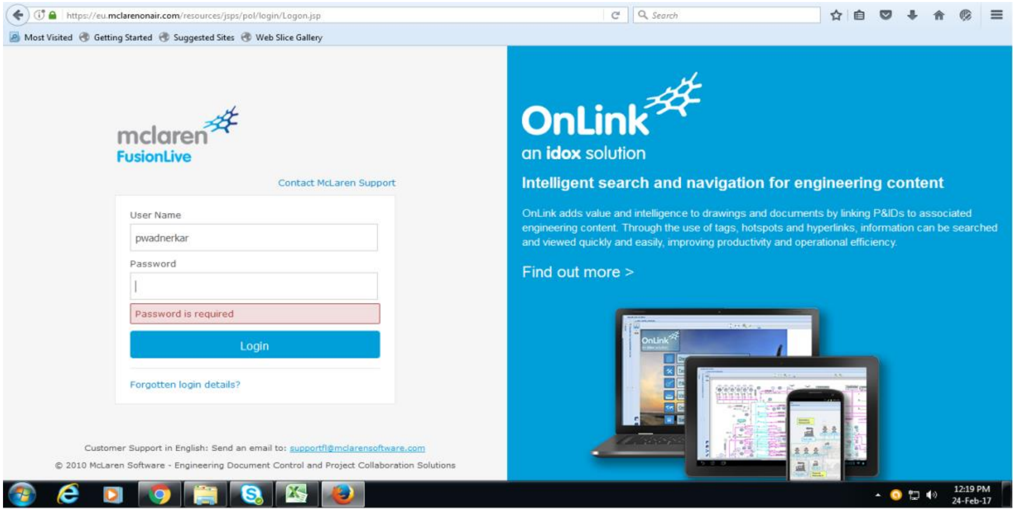
- www.tutorialspoint.com
- www.buzzle.com
- www.tfortesting.wordpress.com
- www.softwaretestingclass.com
- www.softwaretestingmentor.com

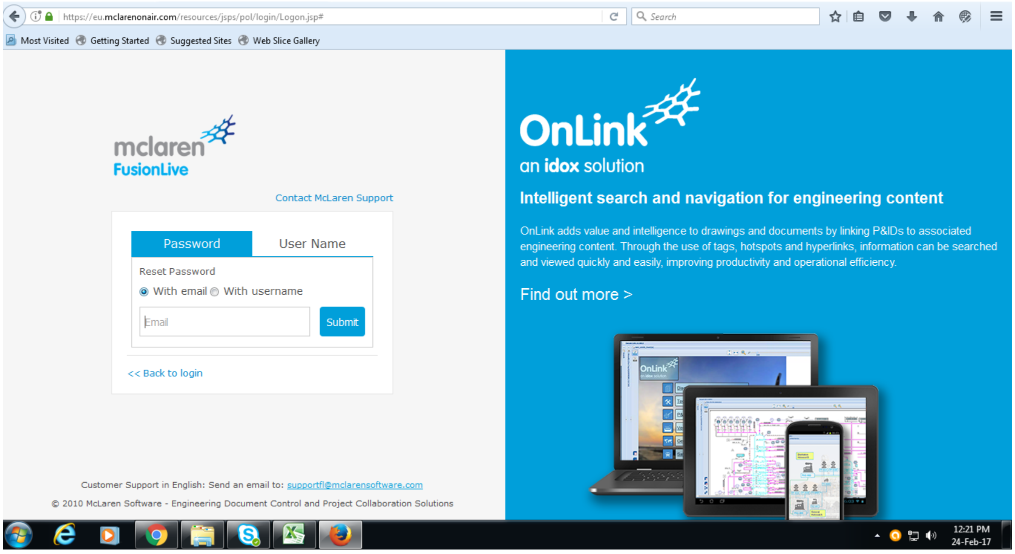
Annexures:

Annexure 1: USER INTERFACE SCREENS

1) Login Screens:



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Find out more >
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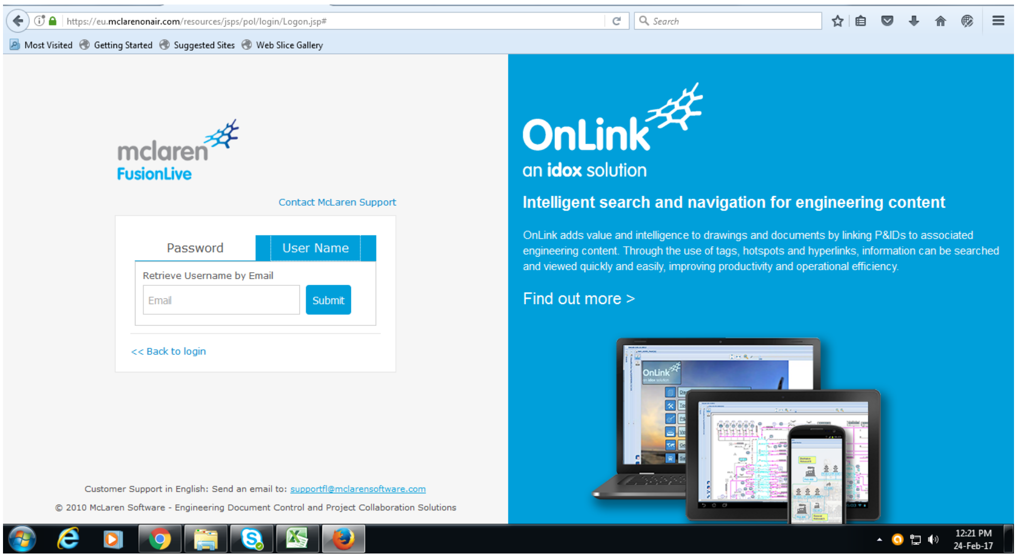
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Retrieve Username by Email
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Customer Support in English: Send an email to: supportfl@mclarensoftware.com
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OnLink adds value and intelligence to drawings and documents by linking P&IDs to associated engineering content. Through the use of tags, hotspots and hyperlinks, information can be searched and viewed quickly and easily, improving productivity and operational efficiency.
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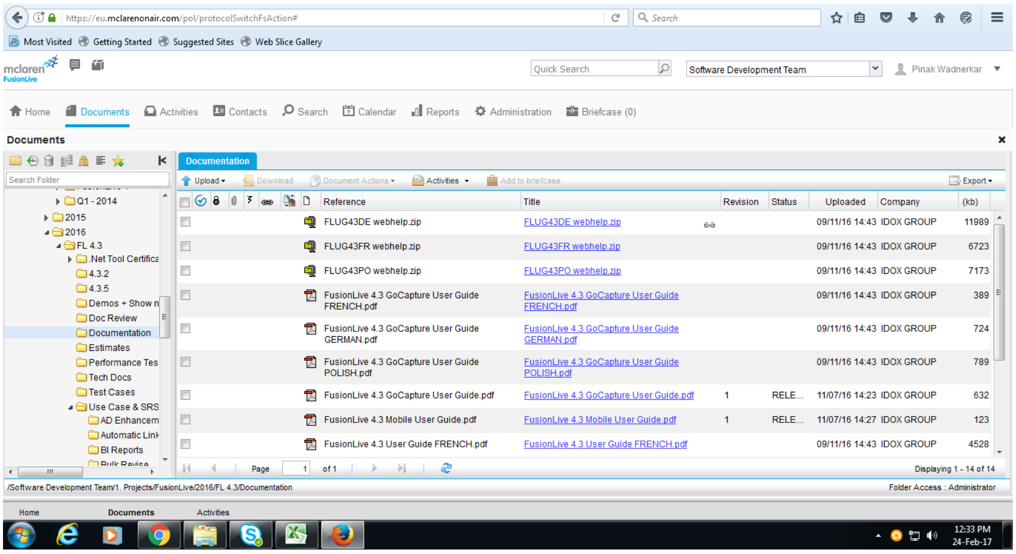
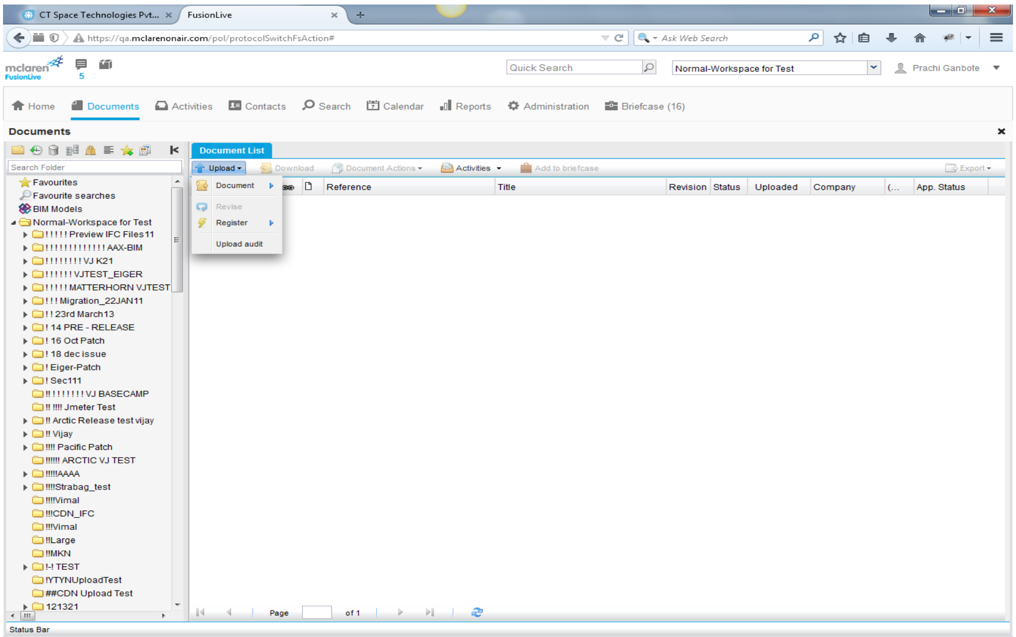
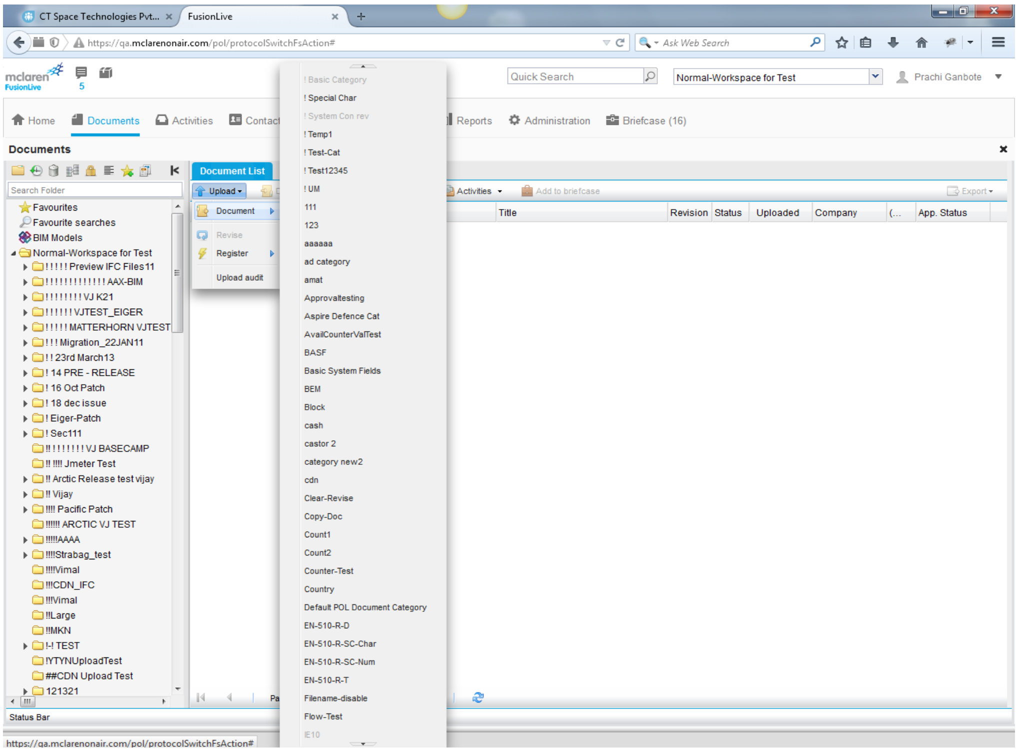
2) Document Module Screens:



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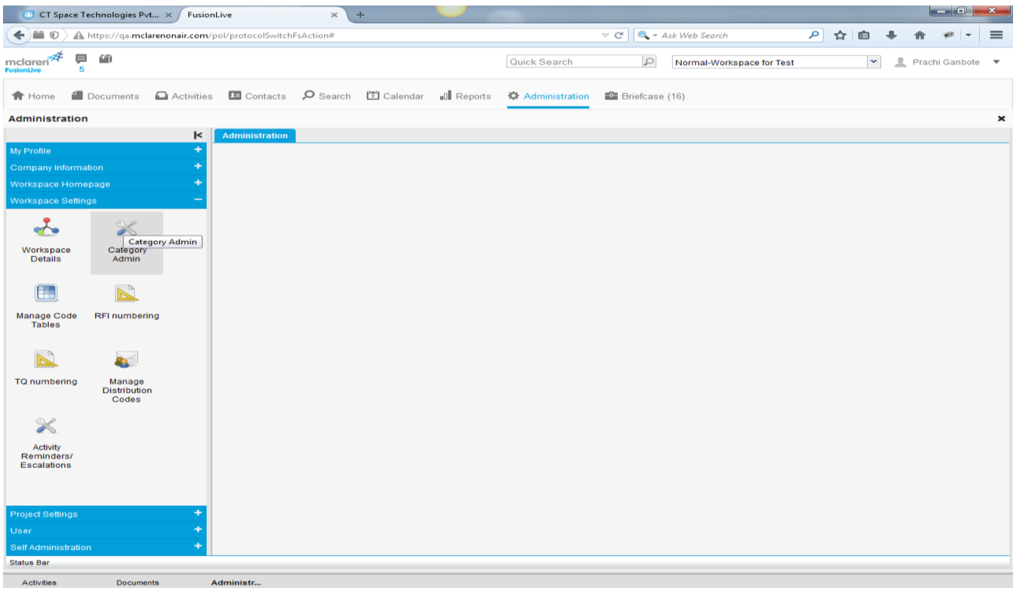
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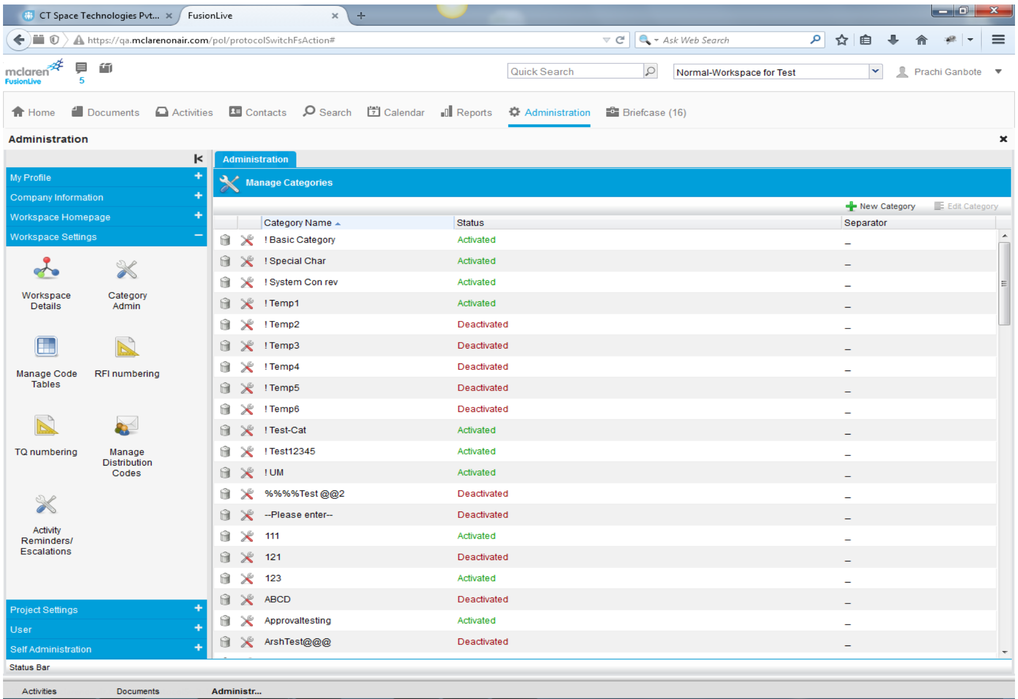
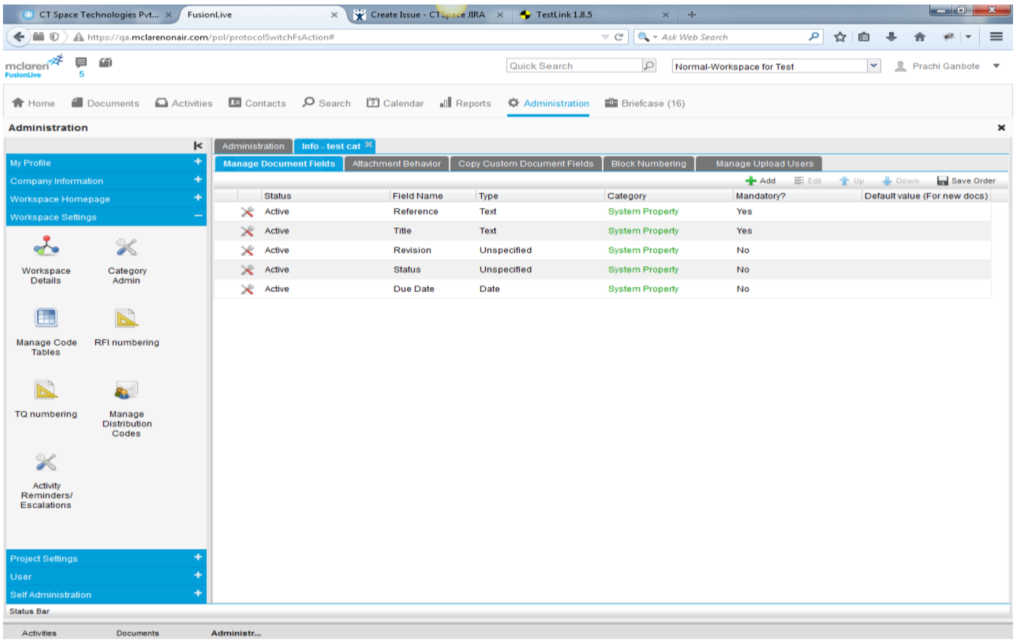
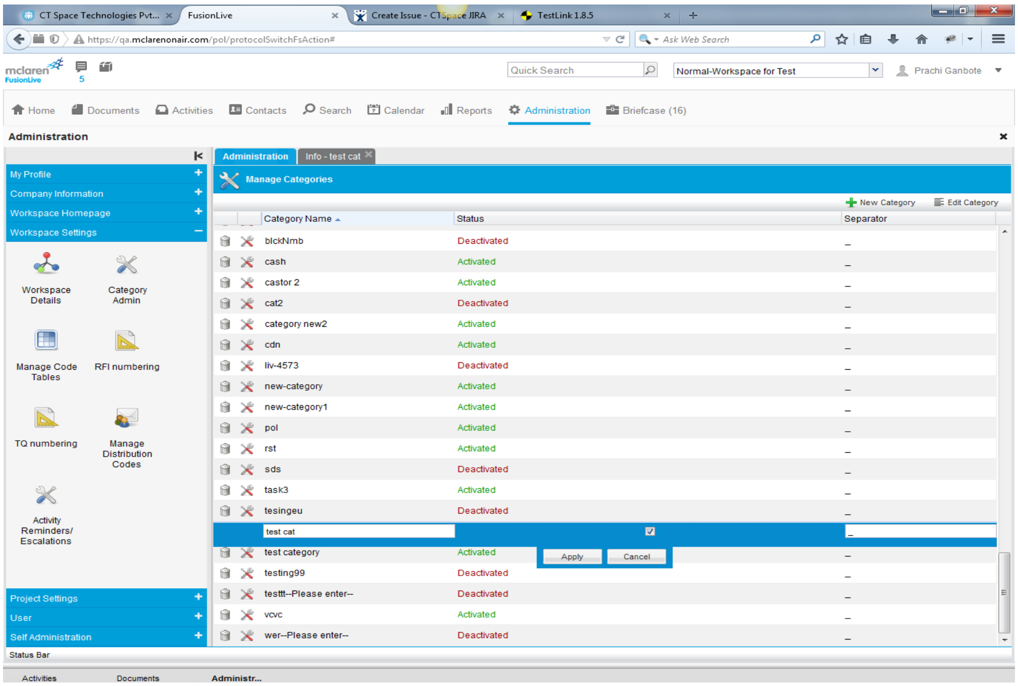
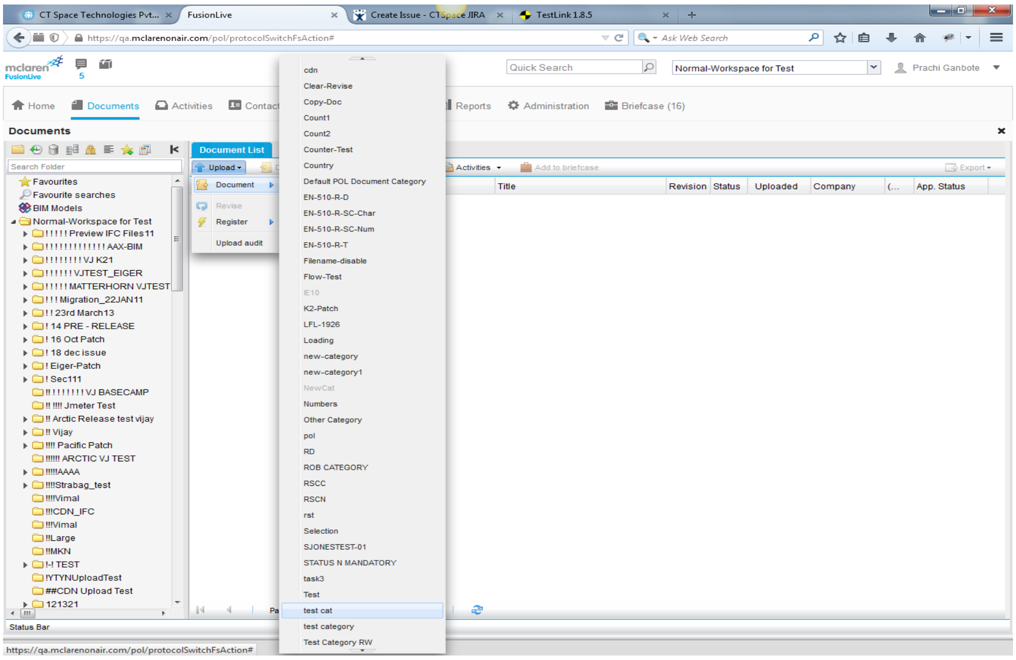
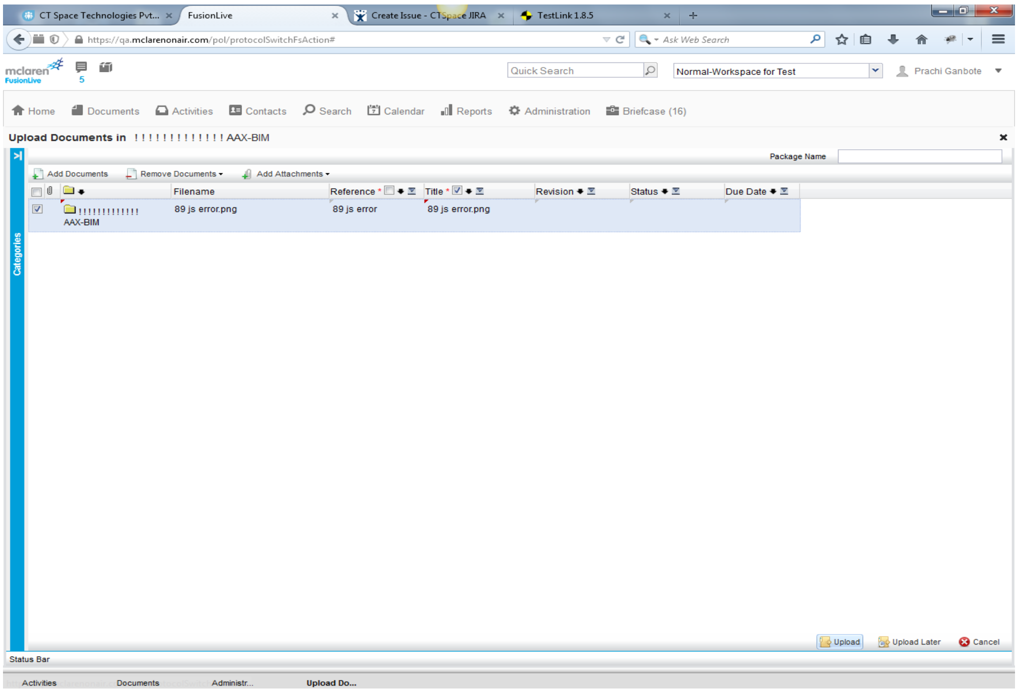
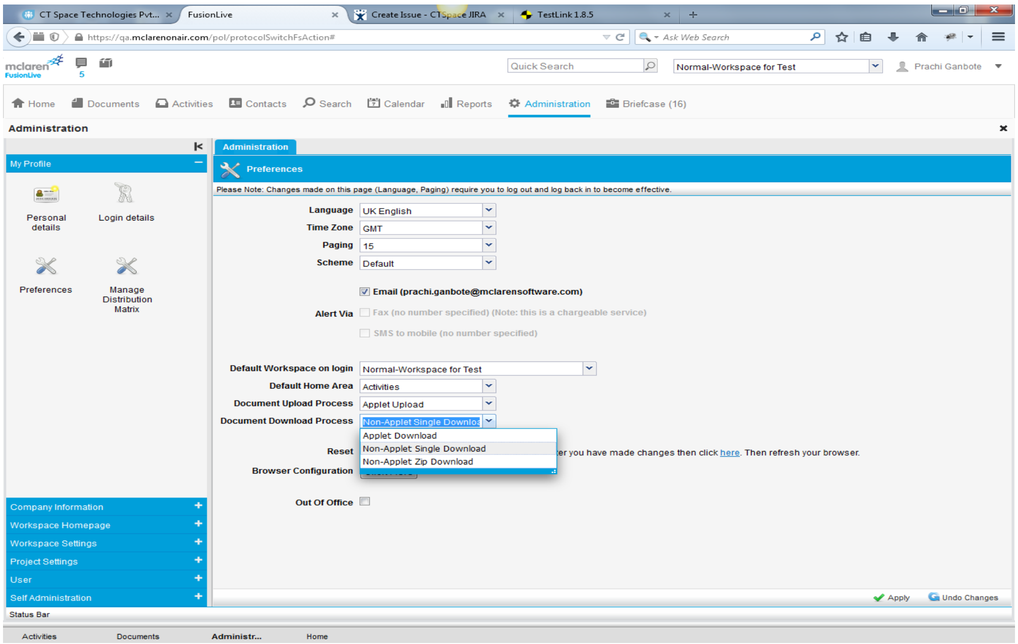




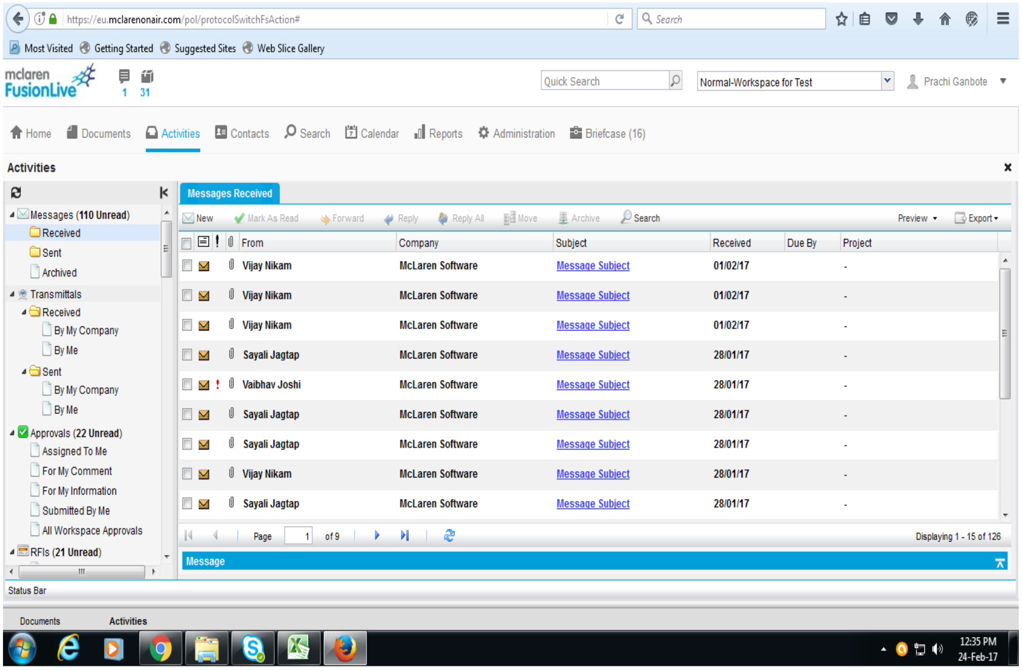


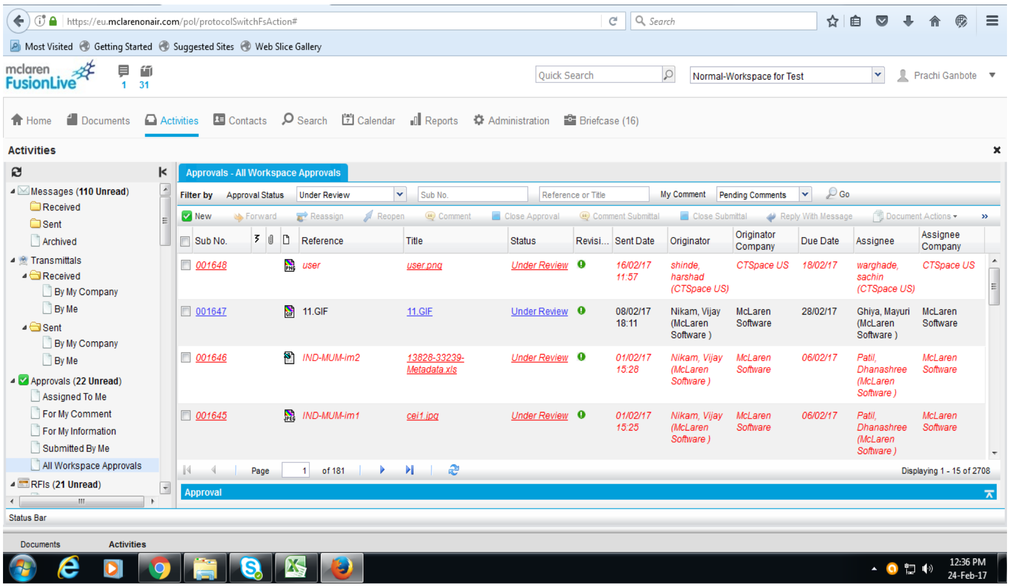


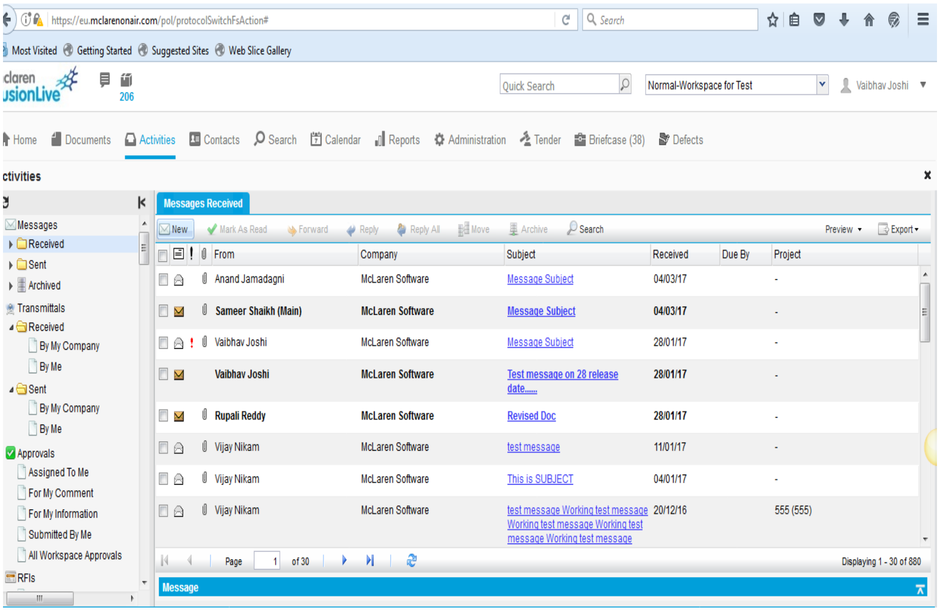


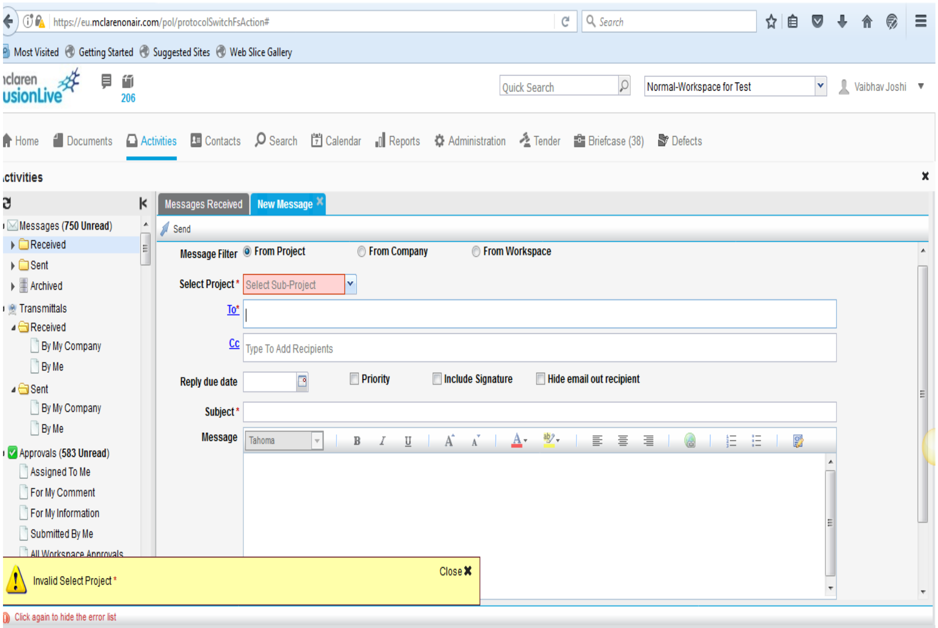


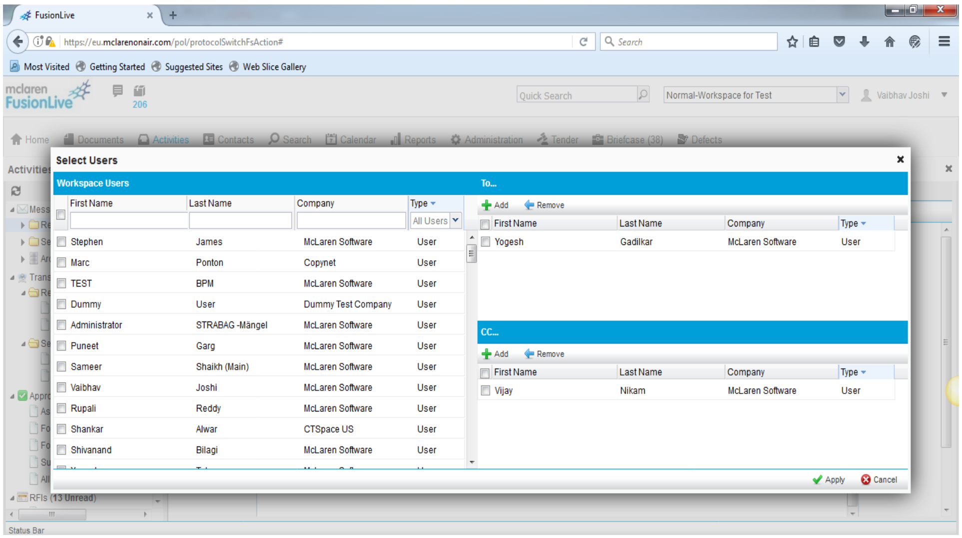
3) Messages Module Screens:

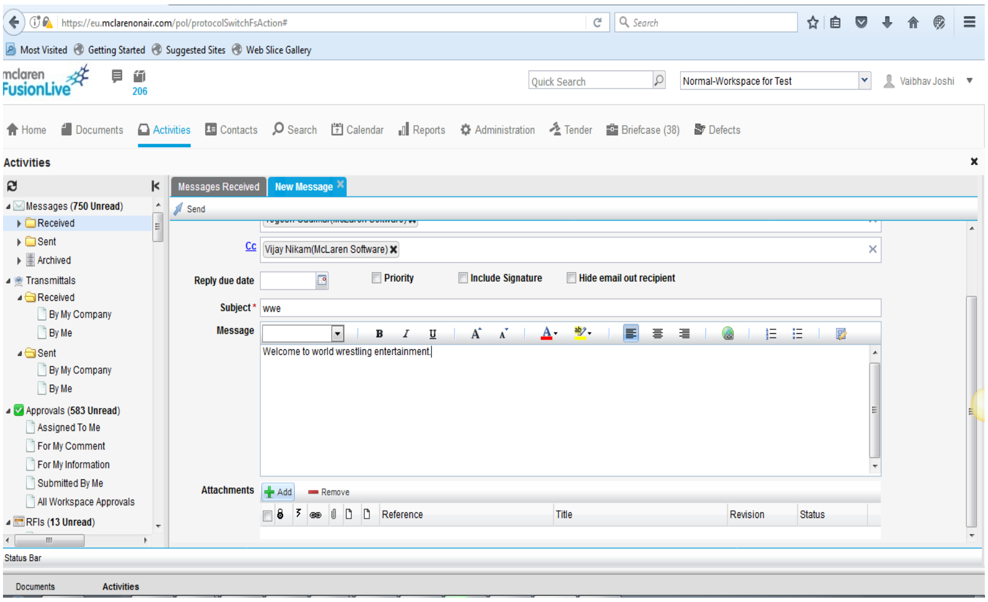


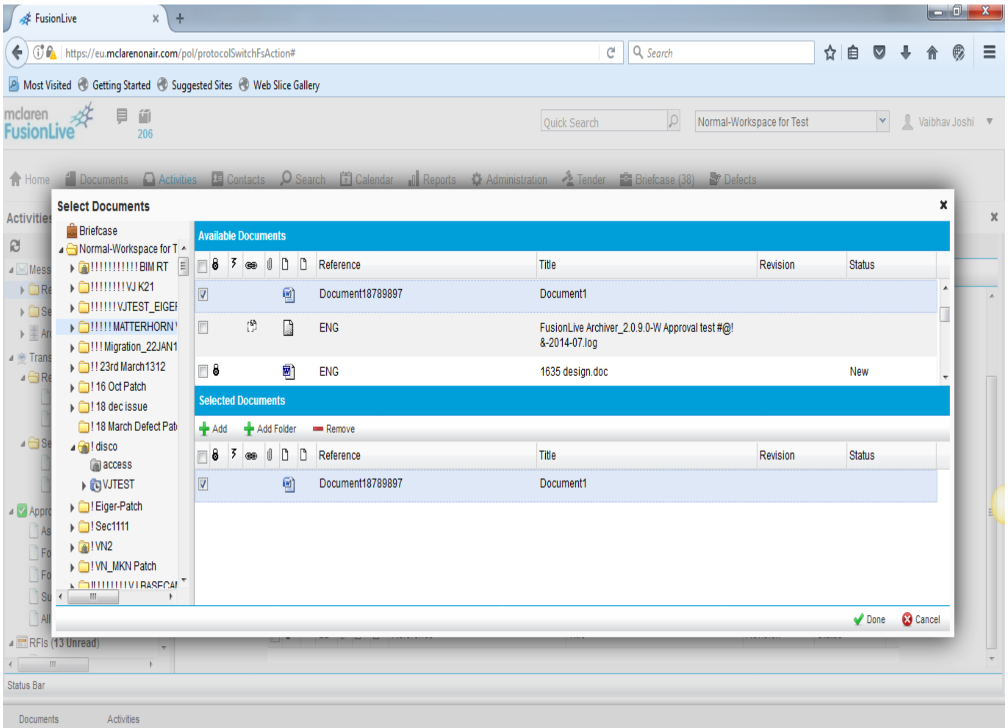








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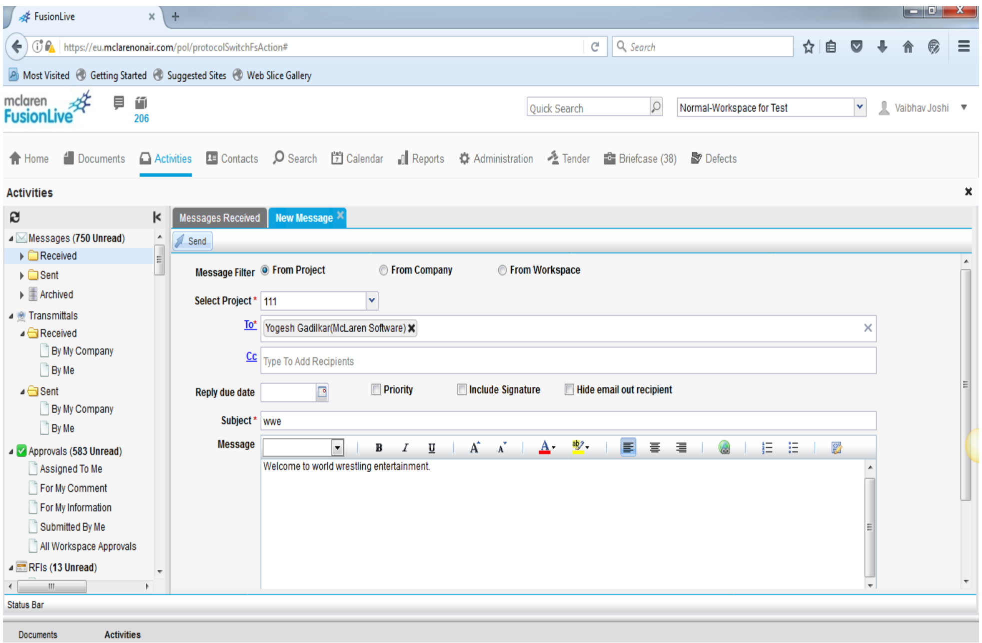
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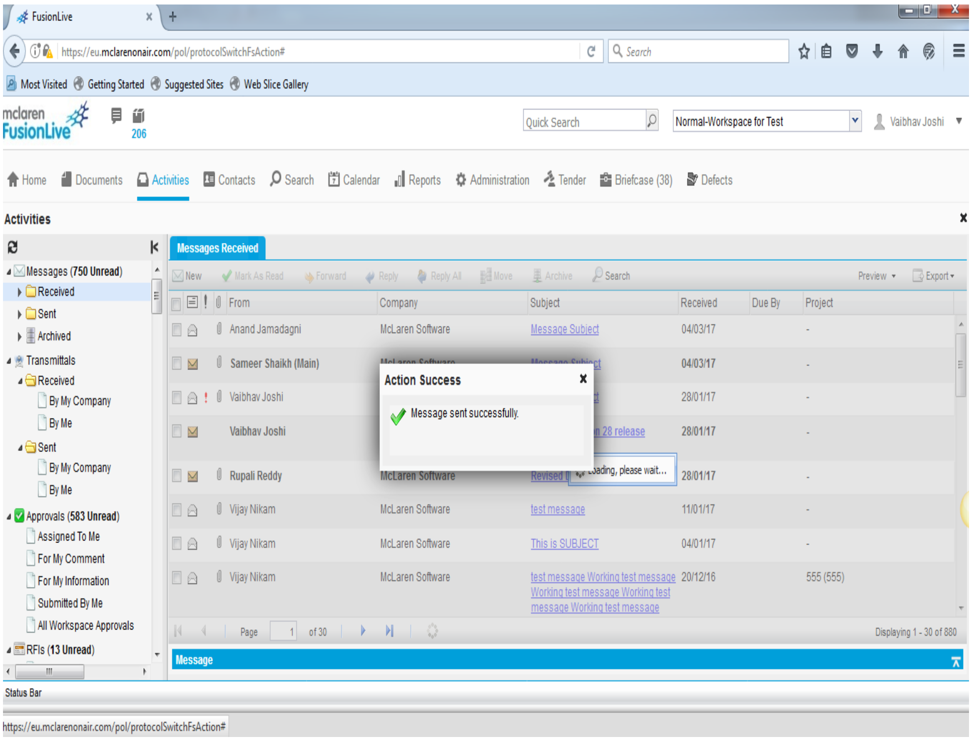
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04/01/17
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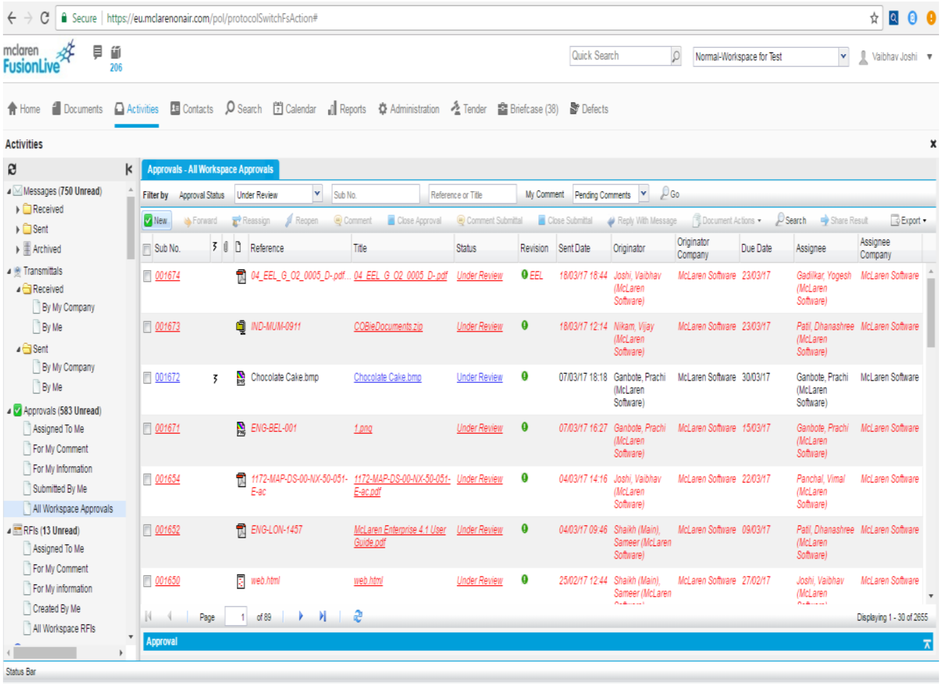

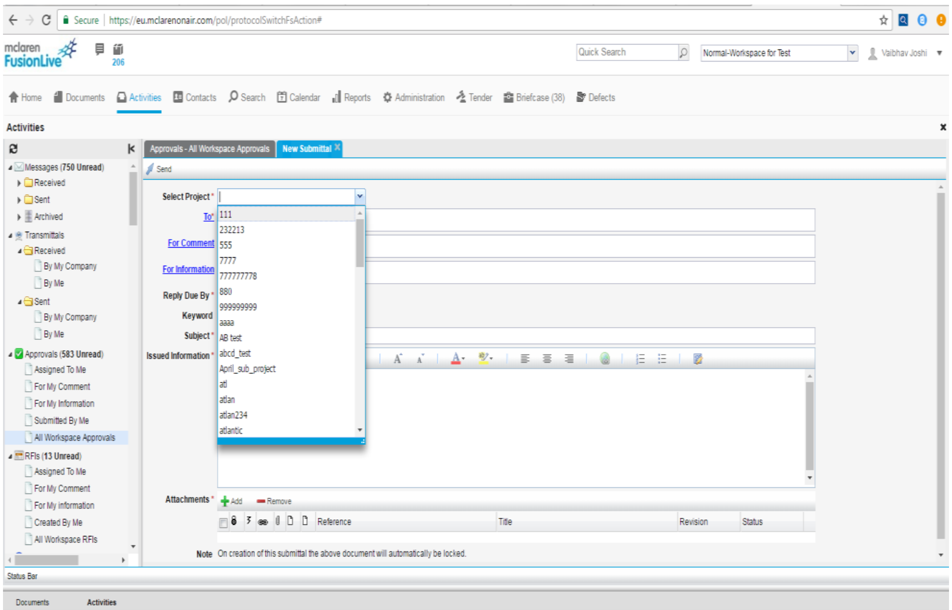

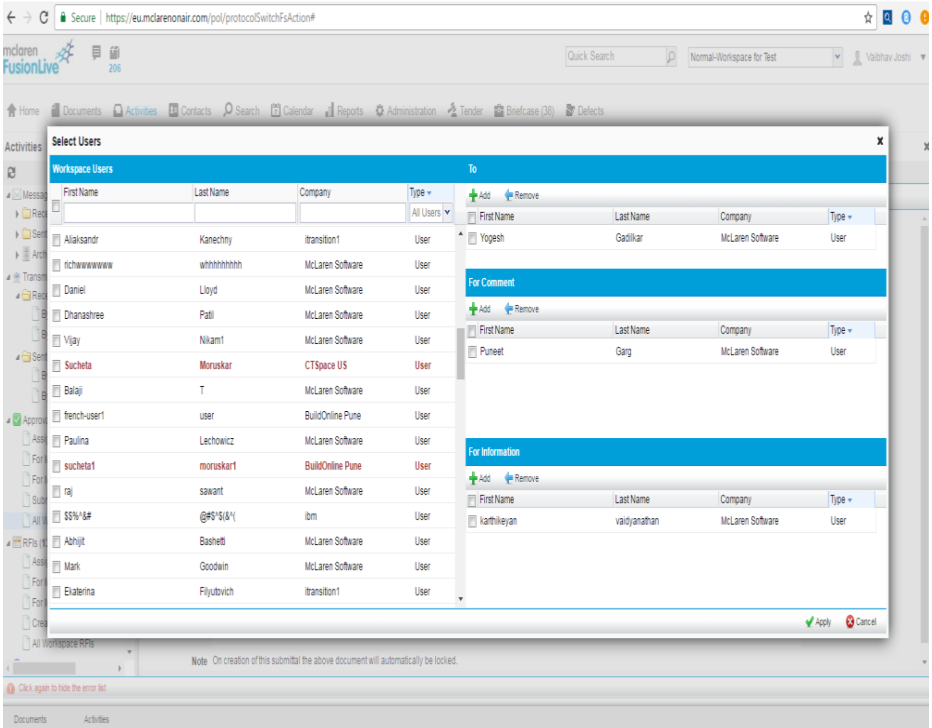
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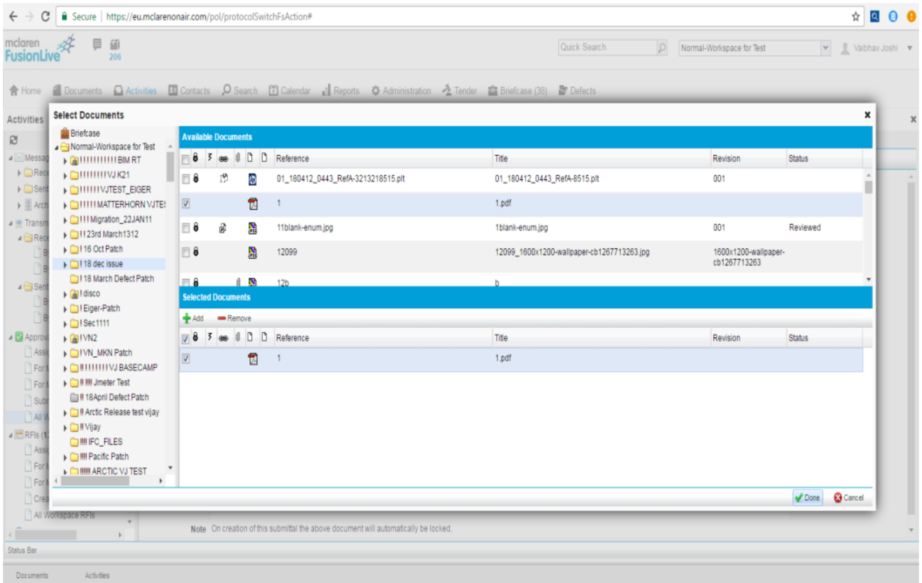
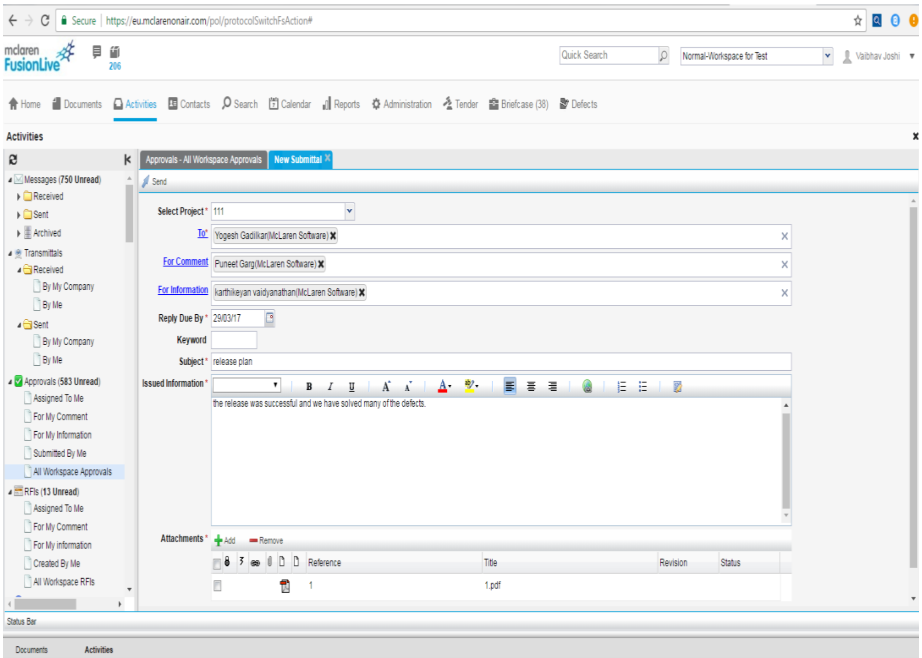
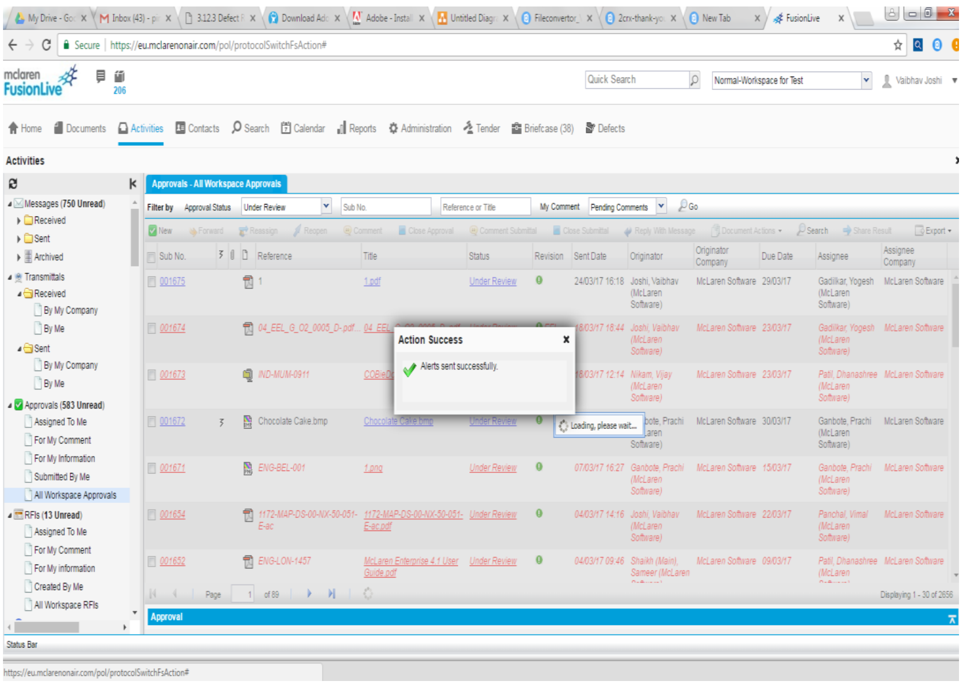
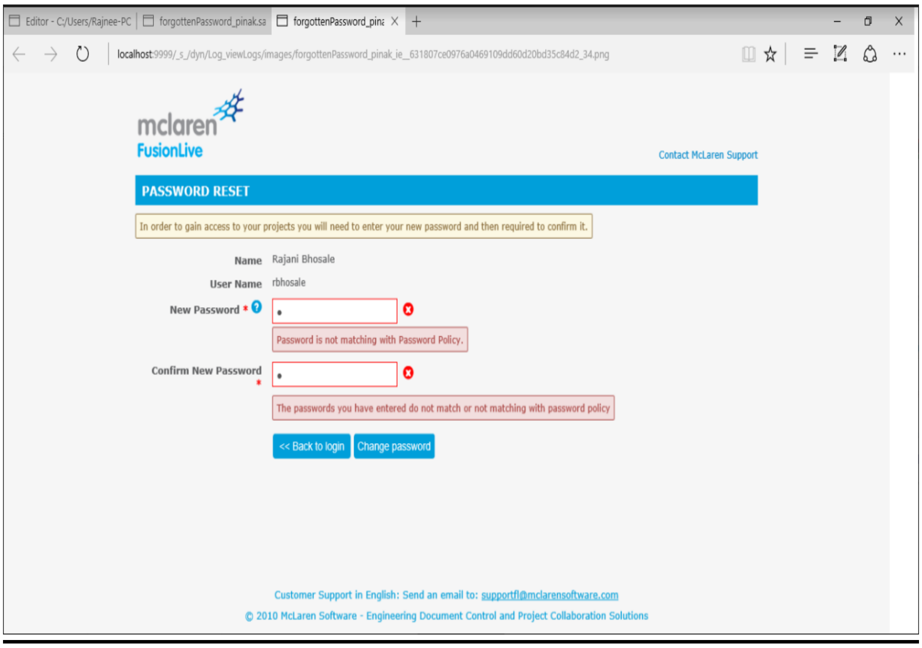
Workspace Users
To
For Comment
For Information
Apply
Cancel

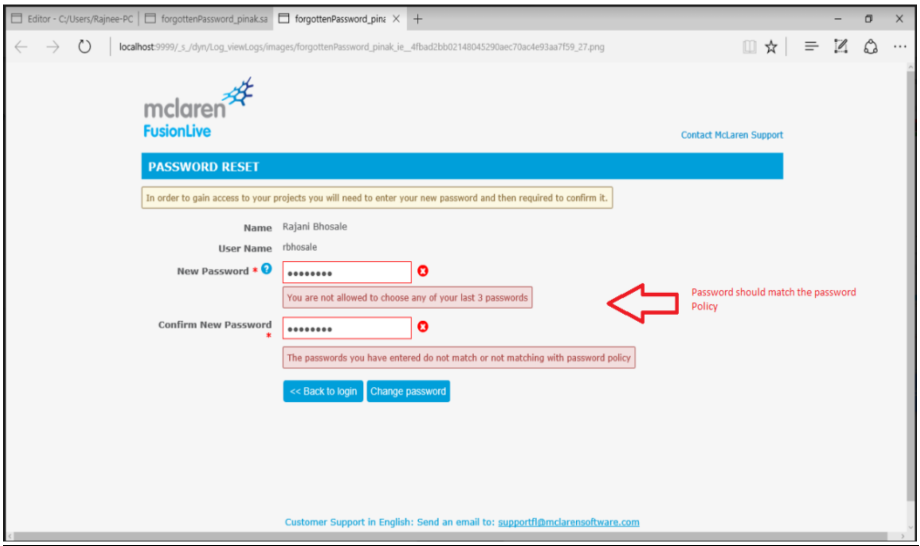

Select Documents
Available Documents
Selected Documents
Done
Cancel

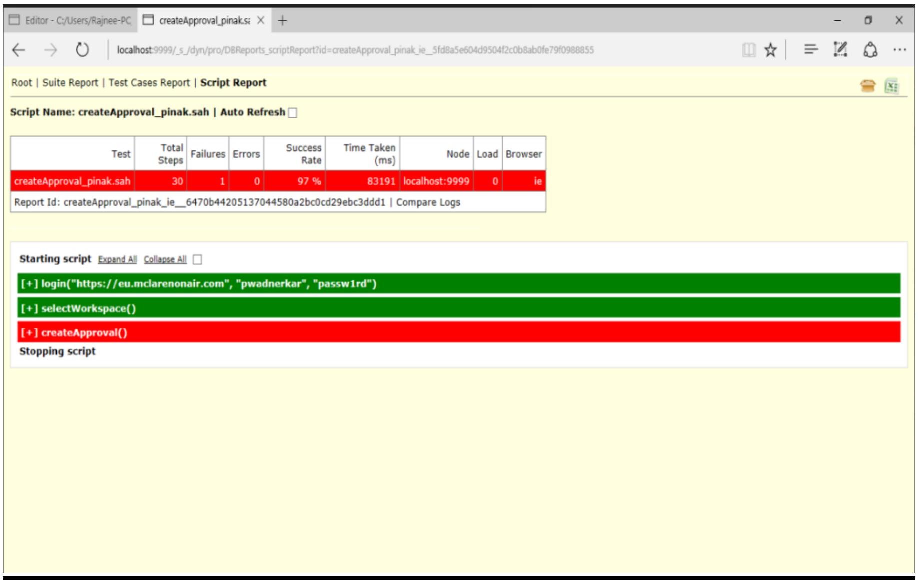

Activities
Approvals - All Workspace Approvals
New Submittal
Send
Select Project
To
Yogesh Gadikar(McLaren Software)
For Comment
Puneet Garg(McLaren Software)
For Information
karthikeyan vaidyanathan(McLaren Software)
Reply Due By
29/03/17
Keyword
Subject
release plan
Issued Information
the release was successful and we have solved many of the defects.
Attachments
Add
Remove
Reference
Title
Revision
Status
1.pdf

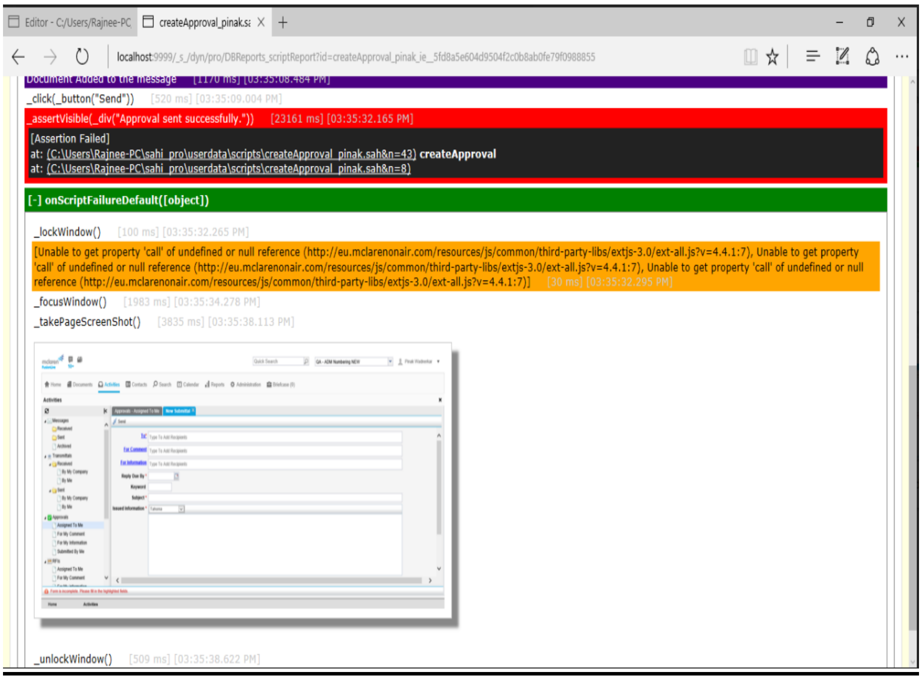

Activities
Approvals - All Workspace Approvals
Action Success
Alerts sent successfully.
Loading, please wait...
Approval

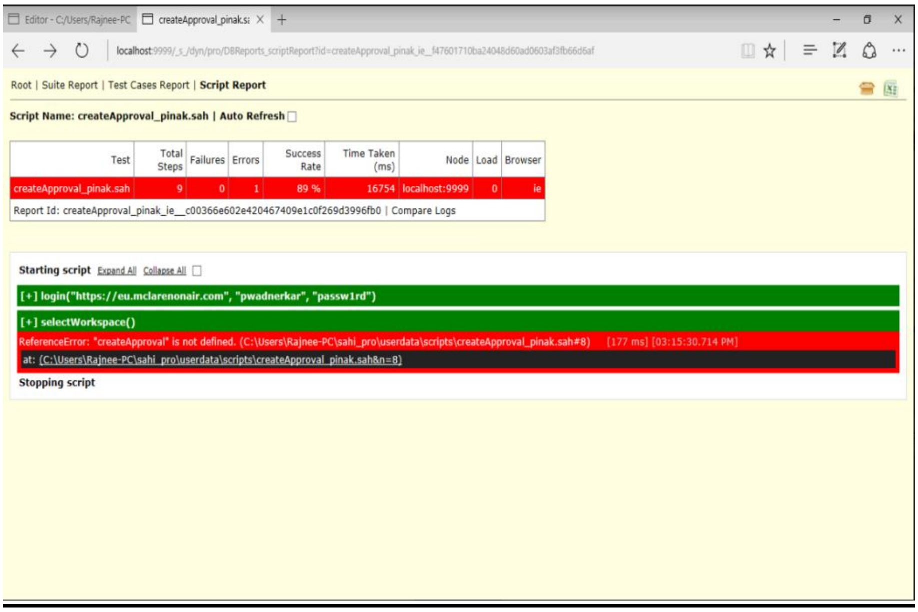
5) Defect Screens:

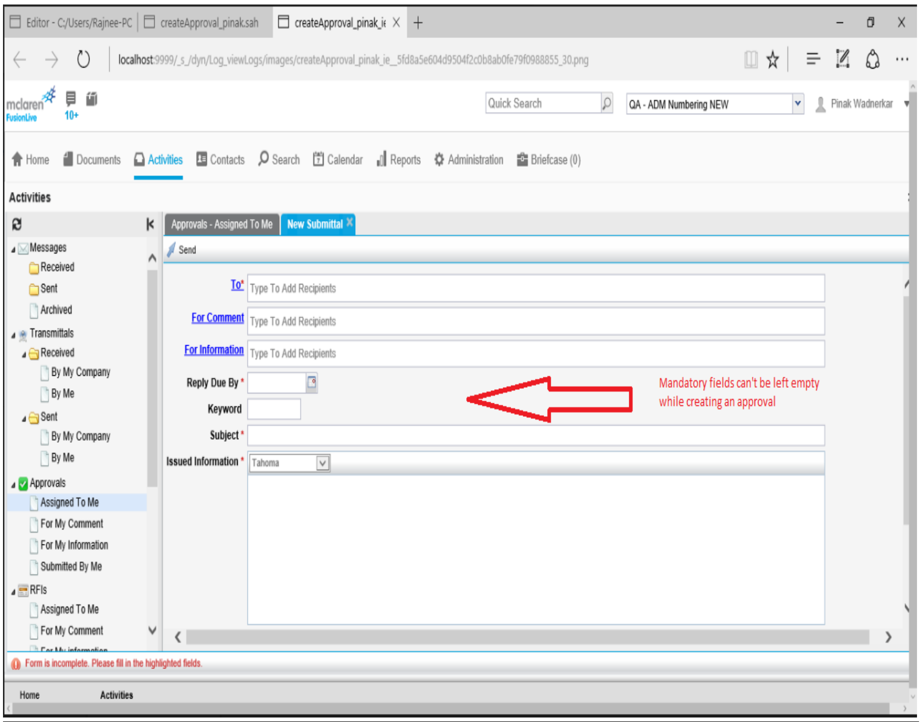


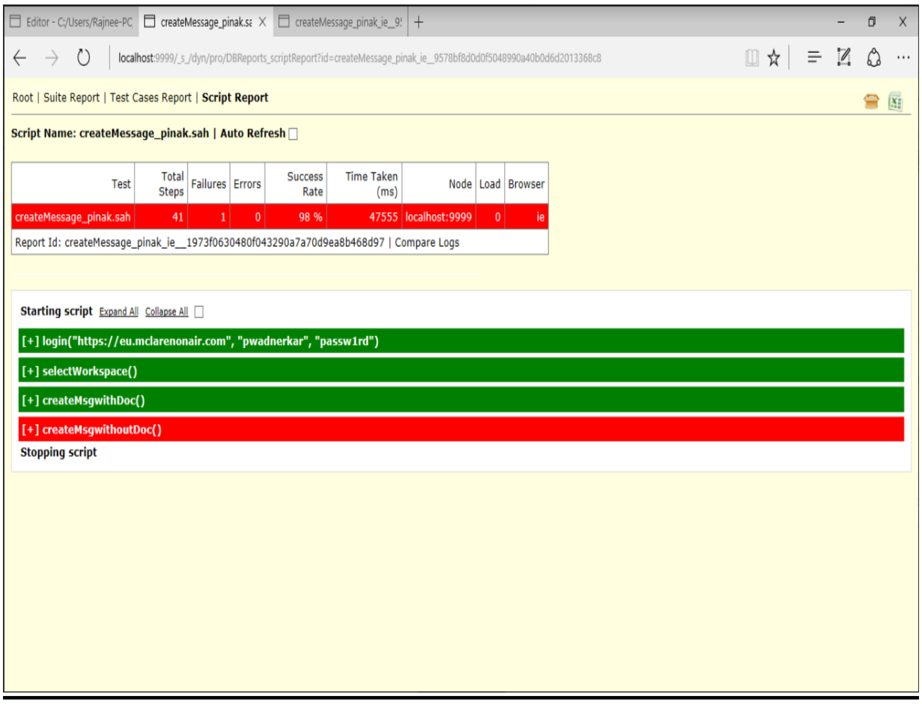


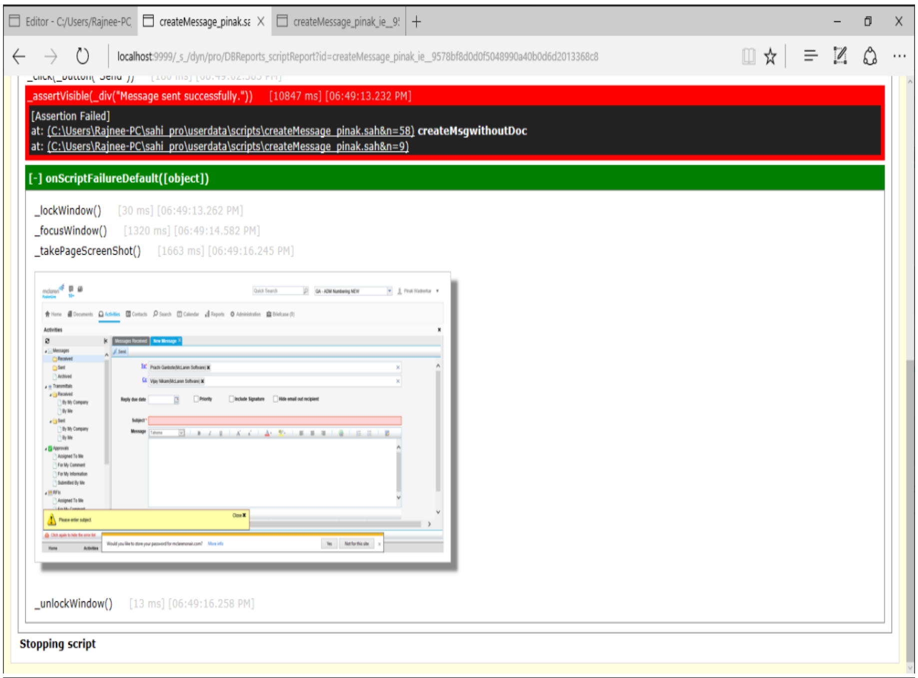

Editor - C:/Users/Rajnee-PC
createApproval_pinak.s
localhost:9999/_s_/dyn/pro/DBReports_scriptReport?id=createApproval_pinak_ie__5fd8a5e604d9504f2c0b8ab0fe79f0988855
Root | Suite Report | Test Cases Report | Script Report
Script Name: createApproval_pinak.sah | Auto Refresh
Test | Total Steps | Failures | Errors | Success Rate | Time Taken (ms) | Node | Load | Browser
createApproval_pinak.sah | 30 | 1 | 0 | 97 % | 83191 | localhost:9999 | 0 | ie
Report Id: createApproval_pinak_ie__6470b44205137044580a2bc0cd29ebc3ddd1 | Compare Logs
Starting script Expand All Collapse All
[+] login("https://eu.mclarenonair.com", "pwadnerkar", "passw1rd")
[+] selectWorkspace()
[+] createApproval()
Stopping script

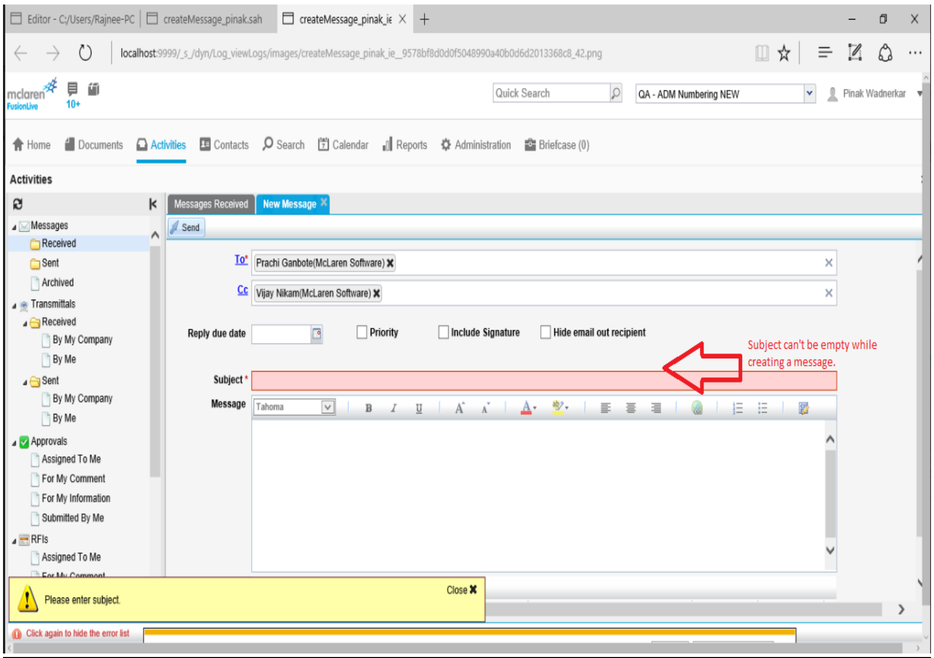

Editor - C:/Users/Rajnee-PC
createApproval_pinak.s
localhost:9999/_s_/dyn/pro/DBReports_scriptReport?id=createApproval_pinak_ie__5fd8a5e604d9504f2c0b8ab0fe79f0988855
_click(_button("Send")) [520 ms] [03:35:09.004 PM]
_assertVisible(_div("Approval sent successfully.")) [23161 ms] [03:35:32.165 PM]
[Assertion Failed]
at: (C:\Users\Rajnee-PC\sahi_pro\userdata\scripts\createApproval_pinak.sah&n=43) createApproval
at: (C:\Users\Rajnee-PC\sahi_pro\userdata\scripts\createApproval_pinak.sah&n=8)
[-] onScriptFailureDefault([object])
_lockWindow() [100 ms] [03:35:32.265 PM]
[Unable to get property 'call' of undefined or null reference (http://eu.mclarenonair.com/resources/js/common/third-party-libs/extjs-3.0/ext-all.js?v=4.4.1:7), Unable to get property 'call' of undefined or null reference (http://eu.mclarenonair.com/resources/js/common/third-party-libs/extjs-3.0/ext-all.js?v=4.4.1:7), Unable to get property 'call' of undefined or null reference (http://eu.mclarenonair.com/resources/js/common/third-party-libs/extjs-3.0/ext-all.js?v=4.4.1:7)] [30 ms] [03:35:32.295 PM]
_focusWindow() [1983 ms] [03:35:34.278 PM]
_takePageScreenShot() [3835 ms] [03:35:38.113 PM]
_unlockWindow() [509 ms] [03:35:38.622 PM]

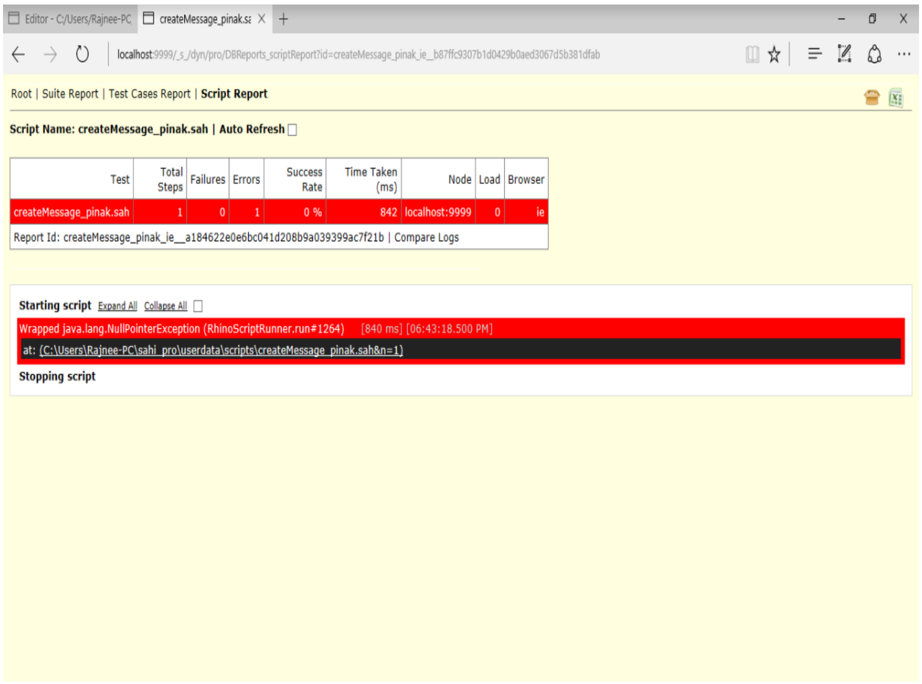

Root | Suite Report | Test Cases Report | Script Report
Script Name: createApproval_pinak.sah | Auto Refresh
Test | Total Steps | Failures | Errors | Success Rate | Time Taken (ms) | Node | Load | Browser
createApproval_pinak.sah | 9 | 0 | 1 | 89 % | 16754 | localhost:9999 | 0 | ie
Starting script Expand All Collapse All
[+] login("https://eu.mclarenonair.com", "pwadnerkar", "passw1rd")
[+] selectWorkspace()
Stopping script


Home Documents Activities Contacts Search Calendar Reports Administration Briefcase (0)
Activities
Approvals - Assigned To Me
New Submittal
Send
To
For Comment
For Information
Reply Due By
Keyword
Subject
Issued Information
Mandatory fields can't be left empty while creating an approval
Form is incomplete. Please fill in the highlighted fields.


Root | Suite Report | Test Cases Report | Script Report
Script Name: createMessage_pinak.sah | Auto Refresh
Test | Total Steps | Failures | Errors | Success Rate | Time Taken (ms) | Node | Load | Browser
createMessage_pinak.sah | 41 | 1 | 0 | 98 % | 47555 | localhost:9999 | 0 | ie
Report Id: createMessage_pinak_ie__1973f0630480f043290a7a70d9ea8b468d97 | Compare Logs
Starting script Expand All Collapse All
[+] login("https://eu.mclarenonair.com", "pwadnerkar", "passw1rd")
[+] selectWorkspace()
[+] createMsgwithDoc()
[+] createMsgwithoutDoc()
Stopping script


_assertVisible(_div("Message sent successfully.")) [10847 ms] [06:49:13.232 PM]
[Assertion Failed]
at: (C:\Users\Rajnee-PC\sahi_pro\userdata\scripts\createMessage_pinak.sah&n=58) createMsgwithoutDoc
at: (C:\Users\Rajnee-PC\sahi_pro\userdata\scripts\createMessage_pinak.sah&n=9)
[-] onScriptFailureDefault([object])
_lockWindow() [30 ms] [06:49:13.262 PM]
_focusWindow() [1320 ms] [06:49:14.582 PM]
_takePageScreenShot() [1663 ms] [06:49:16.245 PM]
_unlockWindow() [13 ms] [06:49:16.258 PM]
Stopping script


Subject can't be empty while creating a message.
Please enter subject.


Script Name: createMessage_pinak.sah | Auto Refresh
Wrapped java.lang.NullPointerException (RhinoScriptRunner.run#1264)
Stopping script

Annexure 2: Defect Report

Def ID	TC ID	Def_Title/ Summary	Def_Description (Steps to reproduce)	Priority	Defect Status	Comment
Dfct_001	Lg_001	Forgotten password link with Username	1. Go to FusionLive login page 2. Click on 'Forgotten Login Details' link 3. Select Username option 4. Select Checkbox for With email 5. Enter valid email id 6. Click on submit button 7. Verify user should receive username on provided email id	P1	Resolved	

Dfct_002	Lg_005	Password Policy	1. Go to FusionLive login page 2. Click on 'Forgotten Login Details' link 3. Select Username option 4. Select Checkbox for With email 5. Enter valid email id 6. Click on submit button 7. Verify user should receive username on provided email id 8. Follow password policy for generating a new password.	P1	Resolved	Any password from previous 3 passwords is not allowed.

Dfct _003	Capp _003	Create Approval Mandatory fields	1. User1 logs in to Fusionlive>>Goes to Activities area and selects Approval tab 2.Click on New button 3. Select user2 in assignee To(link), user3 in for comment (auto suggest) fields 5. Add attachments from documents area 6.Click on Send button. 7. Verify that the Approval is created successfully and received by recipient with attached document	P1	Closed	Approvals can't be created without an assignee and at least one attachment.

Dfct_004	CMsg_001	Create Message: Add Subject	1. User1 logs in to Fusionlive>>Goes to Activities area and selects Messages tab 2.Clicks on New button 3. Adds user2 in To(link), user3 in CC(auto suggest) field with a Subject. 4. Click on Send button. 5. Verifies that the message is created successfully and received by the recipient.	P1	Open	A message can't be created without a message.

Annexure 3: All test cases