Configuration Management Tools

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Topics of Discussion

- Software Configuration Management Tools
  - Jama®
  - Jira®

Configuration Management Tools

Jama®

- Create project folders
- Provides a means for collaboration of items
- Document requirements, test plans and test cases
- Provides traceability
- Perform reviews
- Provides a dashboard with high-level project progress

Additional Resources and Discussion: community.jamasoftware.com

Jira®

- Provides issue tracking and change management functionality for models/software
- Track issues and requests
- Tracks the backlog of changes, their priority, and their projected implementation in a model version

Centralize Requirements Management Process
Teams can create, review, validate, and verify requirements in one centralized location:

- Provides a single source for clear visibility throughout the software lifecycle
- Allows teams to make informed decision and track consensus
- Track tests back to requirements to prove quality and compliance
- Reuse validated requirements to quickly replicate features across projects

Create Project Folders
- Track changes and versions
- Edited items in Jama® creates a new version to compare the different versions (change details)
- Subscribe to items to keep an eye on changes
- Create baselines (i.e. a baseline represents a snapshot of requirements)

Collaboration in Jama
- Interact with those on the project, ask questions, request feedback, and capture information amongst team members
- Review center allows you to keep track of ideas

Requirements Hierarchy

System Requirements:
Provides a high-level
description of the system
that is to be modeled
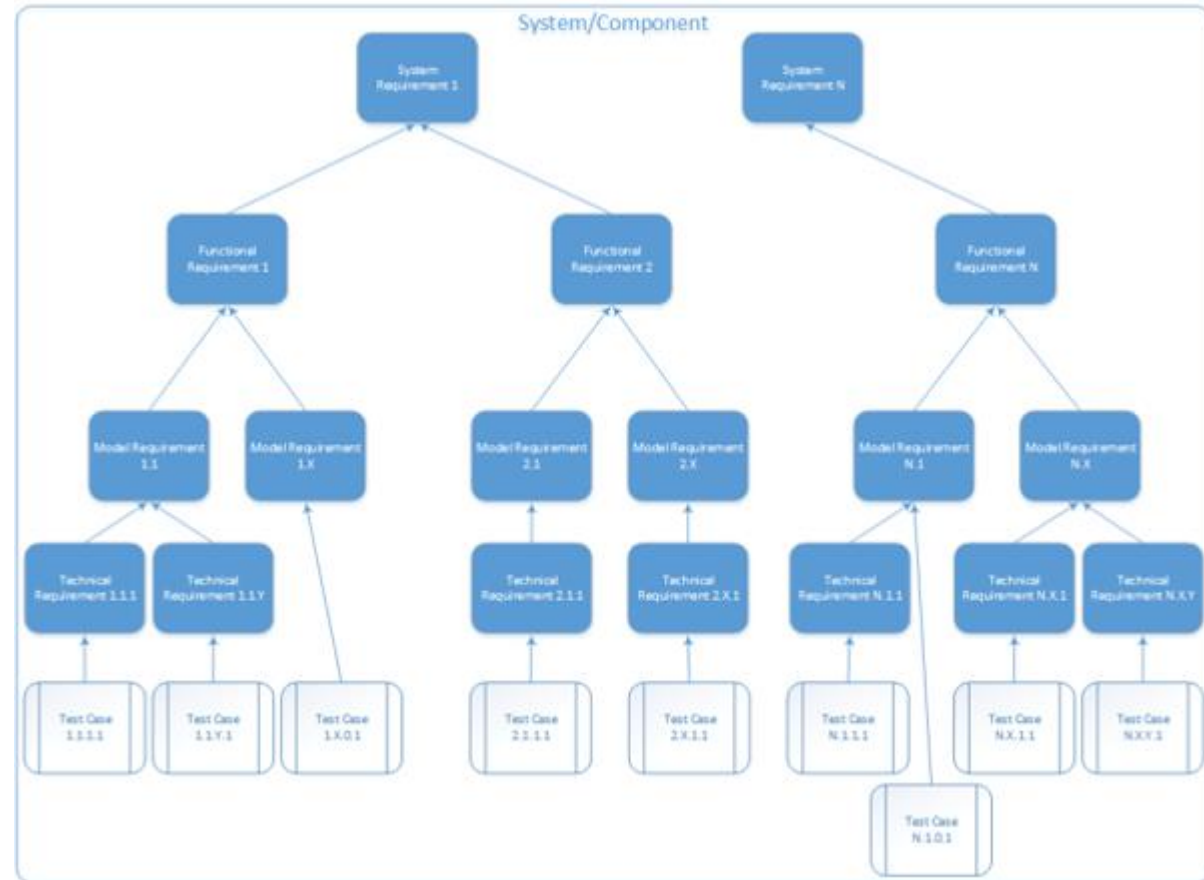**Functional Requirements:**
Specify each function of the
system
Model Requirements:
Specify the model logic used
to accomplish the specified
functions
Technical Requirements:
Provide the
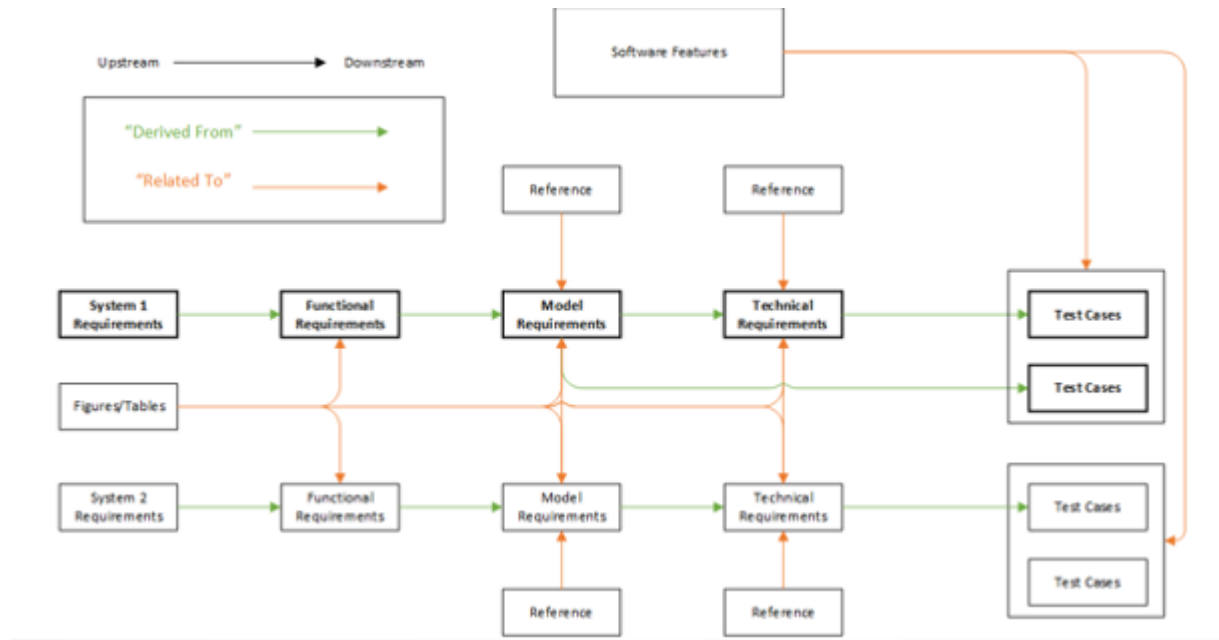numerical/technical inputs
to the model logic

Jama® Testing

- Test plan includes details about the specific test activities and test cases assigned to specific test cycles
  - o Test cases include a description and test steps
  - o Test cycle is the complete set of test runs completed
- Execute runs of test cases
- Log defects from the test run
  - o Defect: if a test fails it identifies a defect
- Provides traceability throughout the testing activities
  - o Establish relationships between items (upstream or downstream)

Jama® Relationships

- Relationships are used to track dependencies between requirements, as well as connections to test cases, supporting references, defects, and/or diagrams
- Relationship Types:
    - <u>Derived From</u>: tracks dependencies in requirements and test cases. These relationships are used to populate the requirements traceability matrix.
    - <u>Related To</u>: Tracks relationships external to the requirements traceability matrix (references, diagrams, defects, related requirements that are not dependent)

Jama® Relationships

- Relationship directions (i.e. "Upstream" or "Downstream")
- Requirement relationship directions should follow the hierarchy (i.e. Model Requirements upstream from Technical Requirements)

Jama® Reviews

- Moderator sets up the review
- Perform reviews and receive emails
- Comments can be added during the review and track your actions
- Changed items will be sent during the review to provide feedback
- Track review progress (comments, items needing more work, and monitor progress)
- Ensures everyone is working on the most current information

Jira® Overview

Jira is used for issue tracking and project management

- Helps teams plan, assign, track, report, and manage work
  - Plan: Create user stories and issues, plan sprints, and distribute tasks across your software team
  - Track: Prioritize and discuss your team's work in full context with complete visibility
  - Report: Improve team performance based on real-time, visual data that your team can put to use
  - Manage work:
    - Create Workflows: In-Progress, Under Review, Final Approval
    - Manage backlog
    - Continuous integration and deployment of releases

Jira® Layout

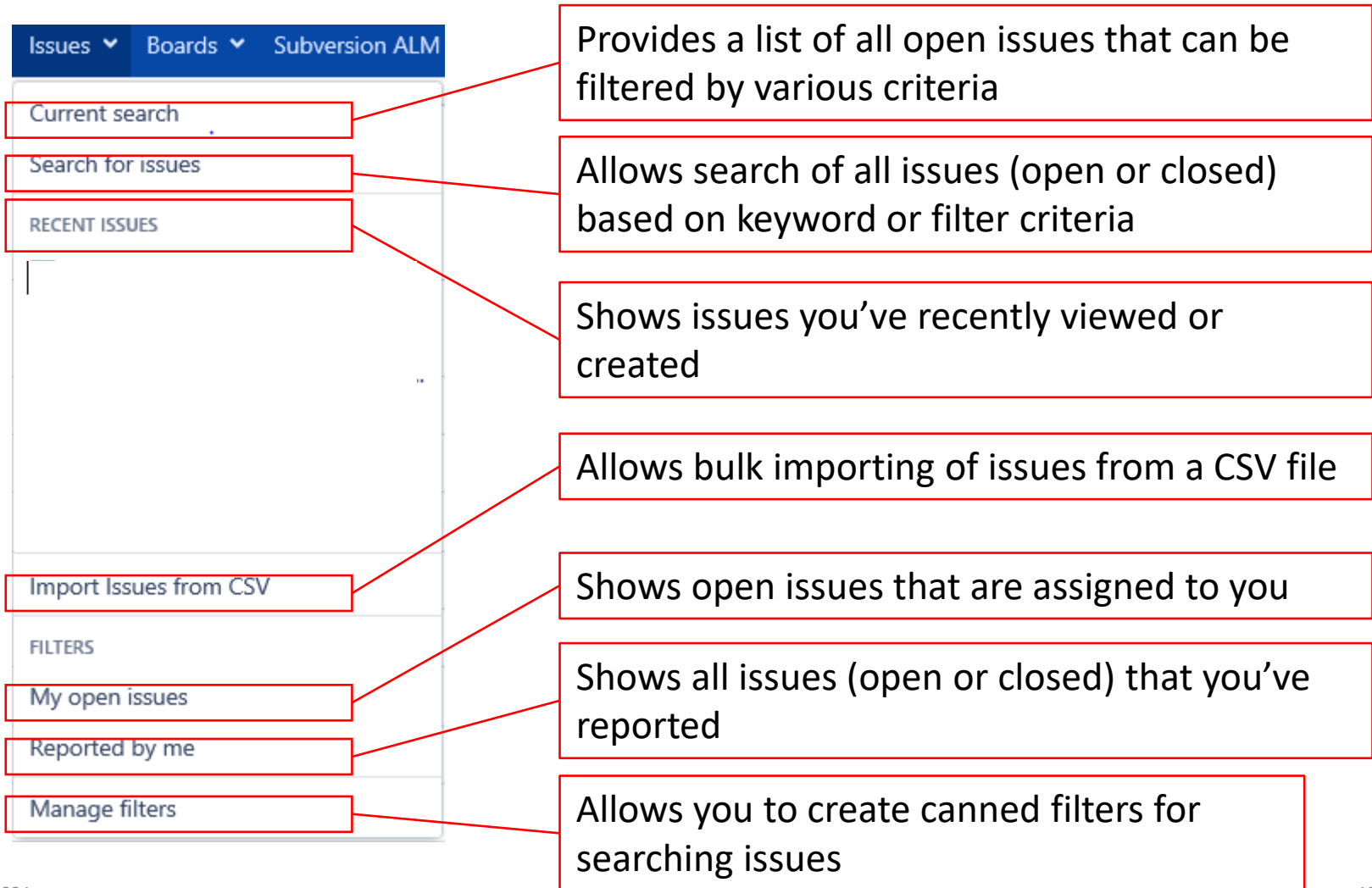Jira® consists of the following functionality:

- Dashboards
  - Provide tools for viewing ticket metrics and the status of tickets in the workflow
- Projects
  - Track the issues for specific software/model tools
- Issues
  - Change requests or development tasks
- Boards
  - Provide a means to sort and organize issues for performing work
- Subversion Repository
  - Links issues to the specific code in the Subversion repository

Jira® Projects

- Jira® Project Pane Includes:
  - Project home-page
  - Project summary – An activity stream for the project
  - Issues – Allows viewing of all open issues in the project
  - Reports – Metrics regarding issue completion in the project
  - Components – Lists the associated software/model tools
  - Subversion (used for source version control)
  - Links to Jira documentation

Jira® Issues

- Issues drop down is used to search for issue tickets

Issues ▾   Boards ▾   Subversion ALM

Current search → Provides a list of all open issues that can be filtered by various criteria

Search for issues → Allows search of all issues (open or closed) based on keyword or filter criteria

RECENT ISSUES → Shows issues you've recently viewed or created

Import Issues from CSV → Allows bulk importing of issues from a CSV file

FILTERS

My open issues → Shows open issues that are assigned to you

Reported by me → Shows all issues (open or closed) that you've reported

Manage filters → Allows you to create canned filters for searching issues

Jira® Backlog

The backlog shows all open tickets, assigned model releases, and order of priority

- Used to plan each model release

- Associate assigned model versions for the release

- Filter on specific models or issue types

- View a particular issue

Configuration Management Tools

Questions
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12/15/2021