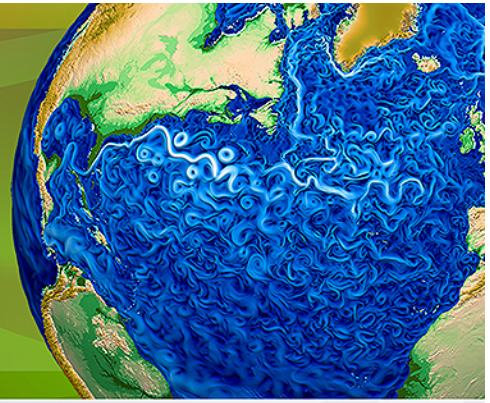
ACME
Accelerated Climate Modeling for Energy



From Road-mapping to Planning to JIRA and Sprints

Renata McCoy, PhD
Project Engineer

U.S. DEPARTMENT OF ENERGY

Tutorials

- Roadmaps and Quarterly Plans
- JIRA Agile – Navigation Explained
- Working with Sprints
- Editing Issues

ACME

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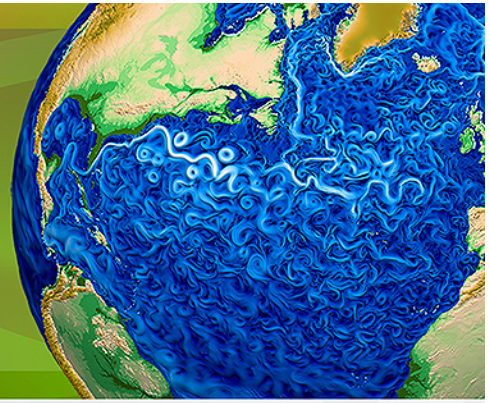

Roadmaps and Quarterly Plans

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ACME Roadmaps and Quarterly Plans Definitions

- **Roadmaps** are revolving plans, rebased on regular basis
  - 1-Year is adjusted every 6 months, 3-Year - every 1 year, and 10-Year - every 3 years
- **(Quarterly) Plans** are static plans based on 12-month revolving Roadmaps
- There are **All-ACME Roadmaps** and **Per-Group Roadmaps**
- **Per-Group Roadmaps** should come from **All-ACME Roadmaps**
- Where to find integrated All-ACME Roadmaps?
  - Council Confluence space
  - Navigate to ACME Roadmap

ACME integrated Roadmaps

Confluence Spaces People Calendars Create

Council

Pages

Blog

All-ACME Roadmaps

SPACE SHORTCUTS

Meeting notes

File lists

Decision log

PAGE TREE

ACME Roadmap

- ACME Vision
- **10-Year ACME Roadmap**
- 3-Year Roadmap for ACME
- 1 Year ACME Roadmap
- 12-month revolving roadmap from
- Quarterly plans from each Group
- ACME Sprints and JIRA Reports F
- Announcements
- Decision log

Space tools

Pages / Council / ACME Roadmap

Edit Watch Share

10-Year ACME Roadmap

Created by Renata McCoy, last modified just a moment ago

The 10-Year Goal

Over the next 10 years, the ACME project will assert and maintain an international scientific leadership position in the development of Earth system and climate models at the leading edge of scientific knowledge and computational capabilities. With its collaborators, it will demonstrate its leadership by using these models to achieve the goal of designing, executing, and analyzing climate and Earth system simulations that address the most critical scientific questions for the nation and DOE.

ACME will achieve this goal through four intersecting project elements:

1. a series of **prediction and simulation experiments** addressing scientific questions and mission needs;

2. a well documented and tested, continuously advancing, evolving, and improving **system of model codes that comprise the ACME Earth system model**;

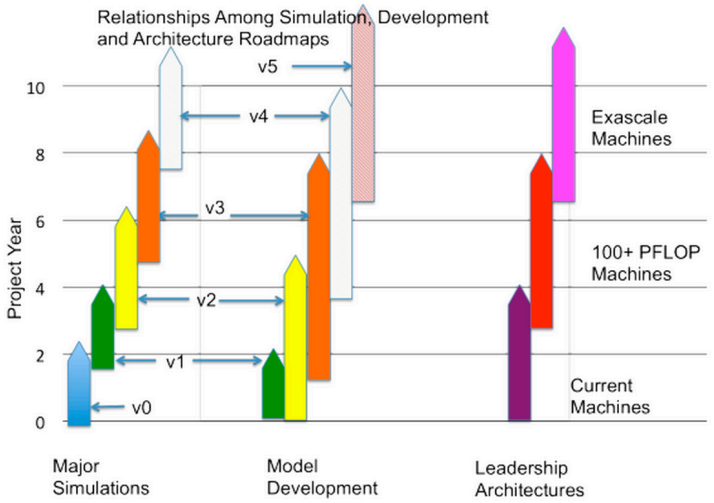
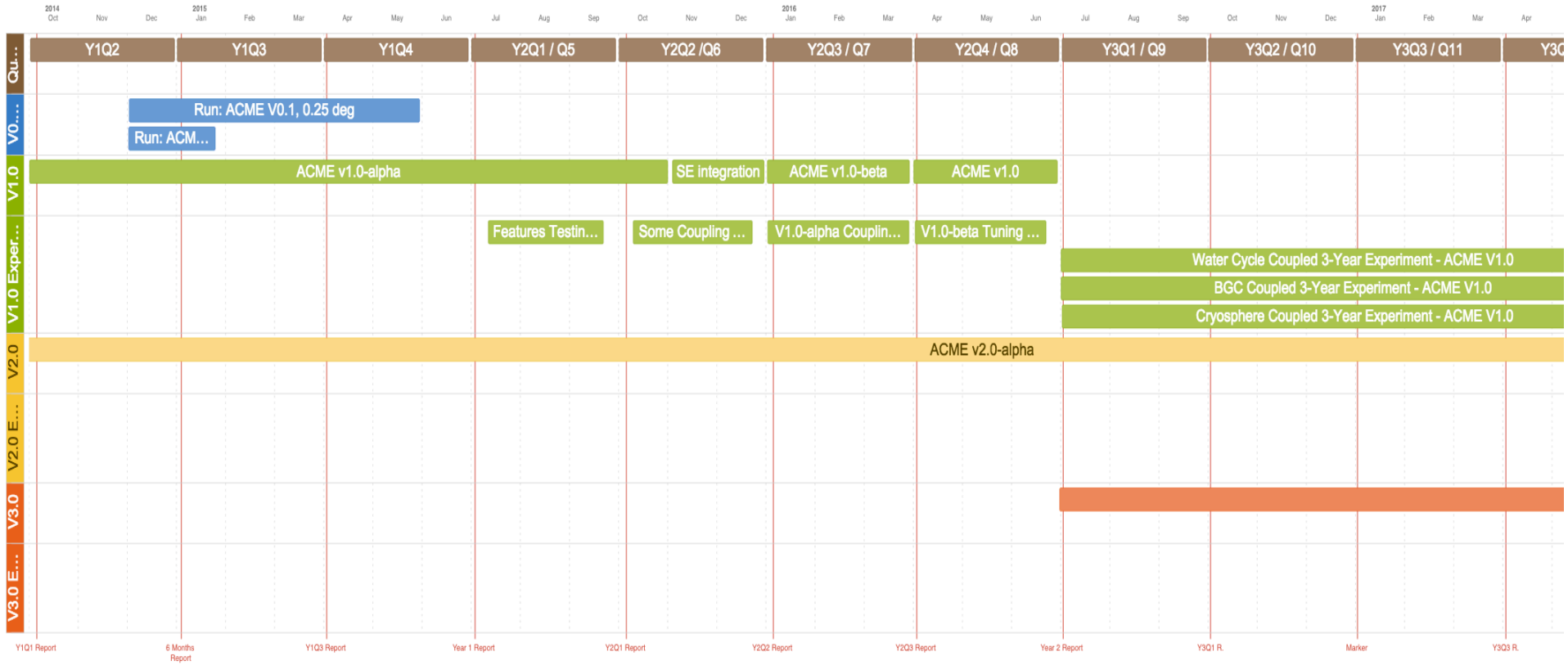


Figure 1. ACME Project Roadmap, the relationships among the first three major project elements: the simulations, the modeling system to perform these

ACME integrated Roadmaps

Pages / Council / ACME Roadmap

10-Year ACME Roadmap



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ACME integrated Roadmaps

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Announcements
Decision log
Decisions and Major Actions
Deprecated
File lists
Meeting notes
Meetings and Presentations

Space tools

Pages / Council / ACME Roadmap

Edit Watch Share

10-Year ACME Roadmap

Created by Renata McCoy, last modified just a moment ago

The 10-Year Goal

Over the next 10 years, the ACME project will assert and maintain an international scientific leadership position in the development of Earth system and climate models at the leading edge of scientific knowledge and computational capabilities. With its collaborators, it will demonstrate its leadership by using these models to achieve the goal of designing, executing, and analyzing climate and Earth system simulations that address the most critical scientific questions for the nation and DOE.

ACME will achieve this goal through four intersecting project elements:

1. a series of **prediction and simulation experiments** addressing scientific questions and mission needs;
2. a well documented and tested, continuously advancing, evolving, and improving **system of model codes that comprise the ACME Earth system model**;
3. the ability to use effectively **leading (and "bleeding") edge computational facilities** soon after their deployment at DOE national laboratories; and
4. **an infrastructure** to support code development, hypothesis testing, simulation execution, and analysis of results.

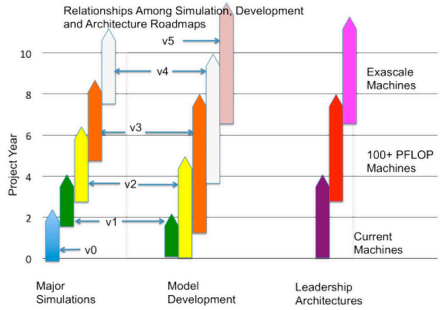
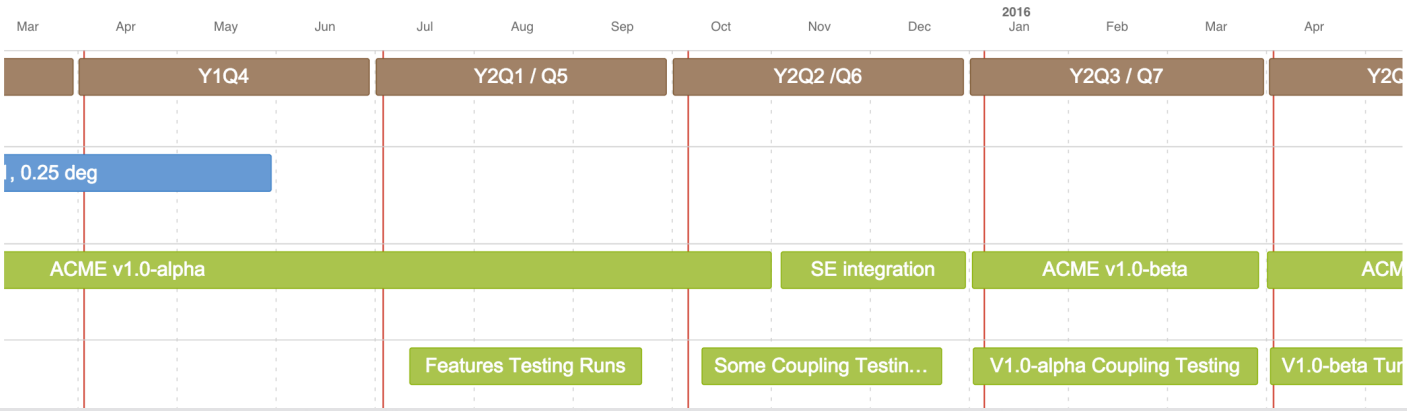


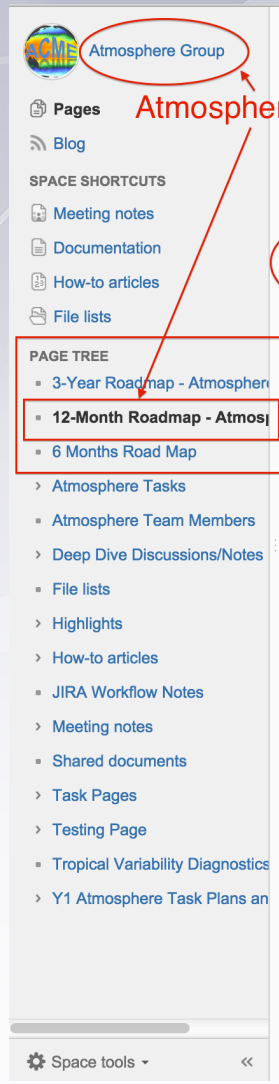
Figure 1. ACME Project Roadmap, the relationships among the first three major project elements: the simulations, the modeling system to perform those simulations, and the machines on which they will be executed. Unlike the other three elements that have distinct but overlapping phases, the fourth element, the infrastructure, will evolve continuously based on the requirements imposed by project needs.



Per-Group 12-month Roadmaps

- Per-Group Roadmaps live in each Group's Space
- Should stem from All-ACME same time-frame Roadmap
  - 12-month Group Roadmap comes from 1-year All-ACME Roadmap
- 12-month Roadmap lists big capabilities and large tasks (of the order of a quarter time)
- We developed table format for these tasks so we can integrate all roadmaps across the project

Group's 12-month Roadmap Table



Effort required to meet these objectives (time-ordered tasks for each major capability); Jan 2015 - Dec 2015 (Q3-Q6 or Y1Q3-Y2Q2).

Atmosphere Group 12-month Roadmap

Capability: related tasks (table ID for dependencies)	Deliverable	ID	Primary and related task IDs	Effort Lead	Depends on	Start date (planned)	End date (planned)	Current status	Notes	ACME version
Update Convection Parameterization		A1	P1	@Shaocheng Xie						
Epic 1: Test updated CLUBB + MG2	Correctly implemented code in ACME	A1.1		@Wuyin Lin (code implementation, CAPT, AMIP) @Kai Zhang (SCM) @Yuying Zhang (Metrics/Diag)		01 Mar 2015	31 Dec 2015	started	Coordinated with RRM A3.4 and Higher resolution simulations A4.	v0.2
Epic 2: Test UNICON	Correctly implemented code in ACME	A1.2		@Jin-Ho Yoon (code implementation, AMIP) @Wuyin Lin (CAPT) @Kai Zhang (SCM) @Yuying Zhang (Metrics/Diag)		01 Mar 2015	31 Dec 2015	started	Coordinated with RRM A3.4 and Higher resolution simulations A4.	v0.2
Epic 3: Test G. Zhang's improvements to ZM	Correctly implemented code in ACME	A1.3		@Steve Ghan (code porting) @Wuyin Lin (code porting, CAPT, AMIP) @Kai Zhang (SCM) @Yuying Zhang (Metrics/Diag)		01 Jan 2015	31 Dec 2015	started	Coordinated with RRM A3.4 and Higher resolution simulations A4.	v0.2
Epic 4: Test MG2	Correctly implemented code in ACME	A1.4		@Wuyin Lin (code implementation, CAPT, AMIP) @Kai Zhang		01 Mar 2015	31 Dec 2015	started	Coordinated with RRM A3.4 and Higher resolution simulations A4.	v0.2

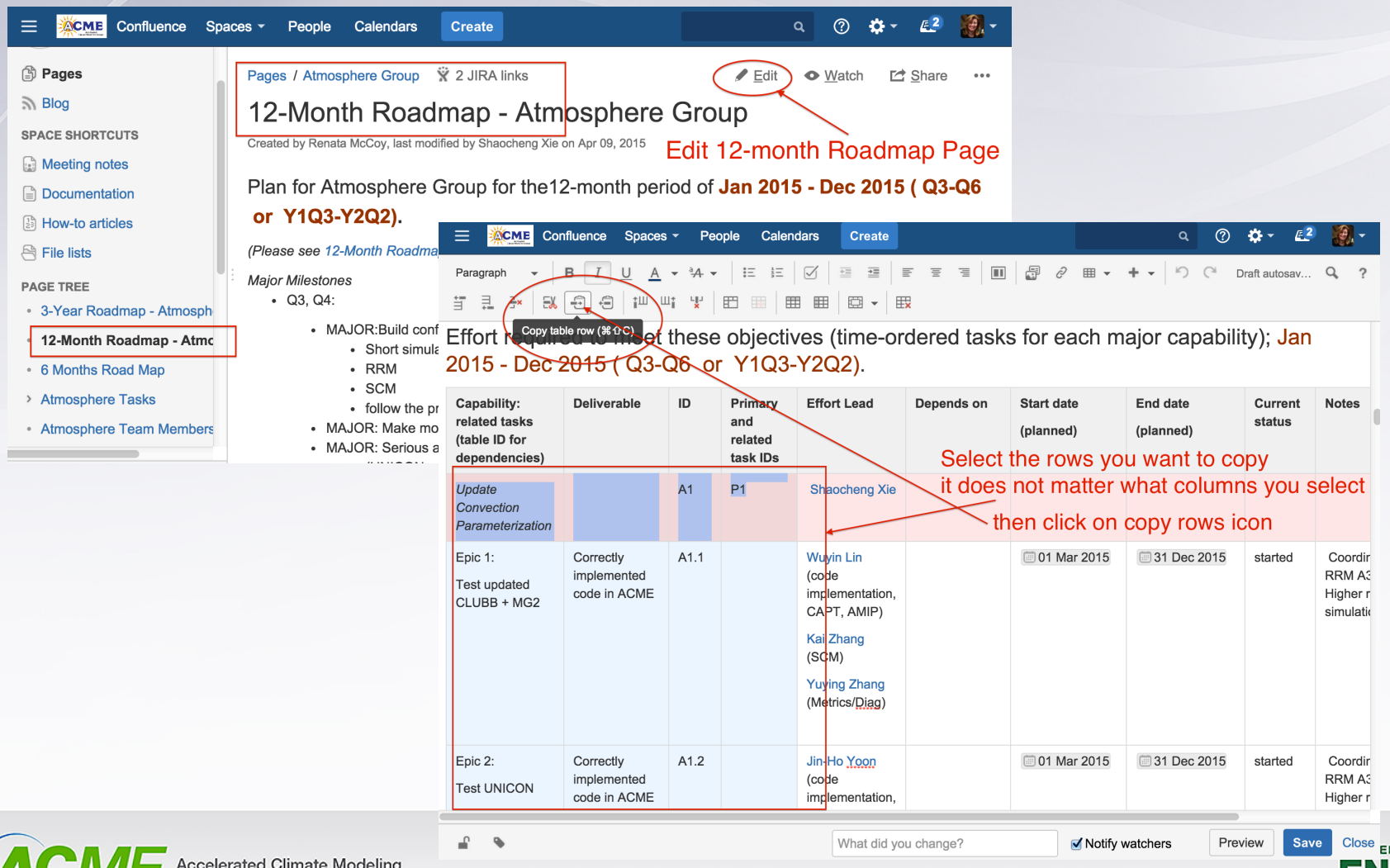
Large Capability (often = JIRA Component)

Big Task (= Epic in JIRA)

Group's Quarterly Plans

- Quarterly Plan is a refined version of 12-month Roadmap for a quarter effort
- Quarterly Plans are static and next quarter plans are prepared 6 weeks after the start of the current quarter
- Quarterly Plans are not to be rebased or adjusted after creation
- We can add or change tasks in quarterly plan, but this is reflected as a scope creep and an explicit change in plan
- To create quarterly plan,
  - copy and paste the 12-month roadmap table to a new quarterly plan page,
  - delete the tasks that do not fall into this quarter
  - refine all tasks to smaller granularity of 2-weeks efforts
  - create JIRA tasks from all the tasks in the table

Creating Group's Quarterly Plans
Copy 12–month roadmap table



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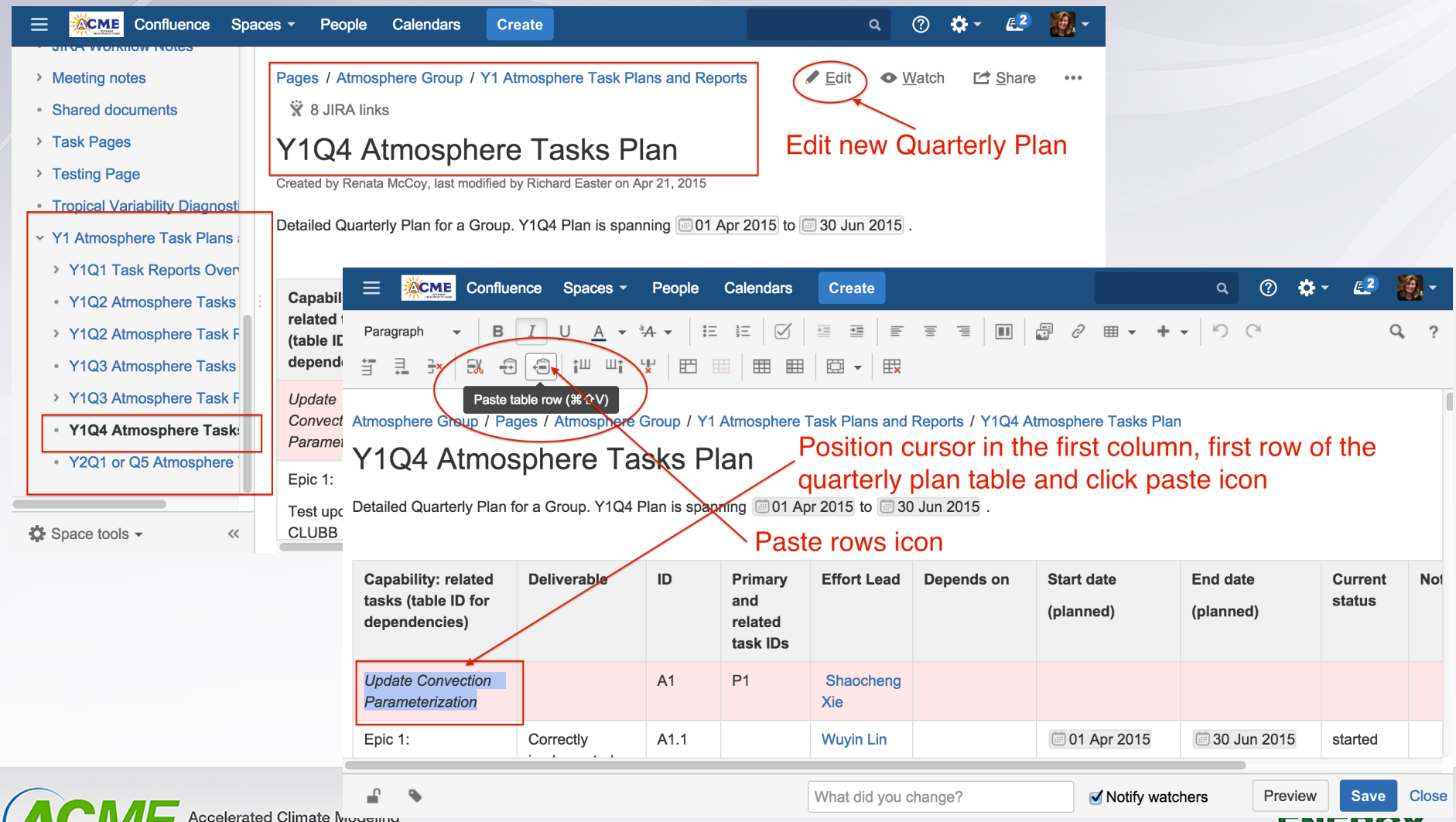
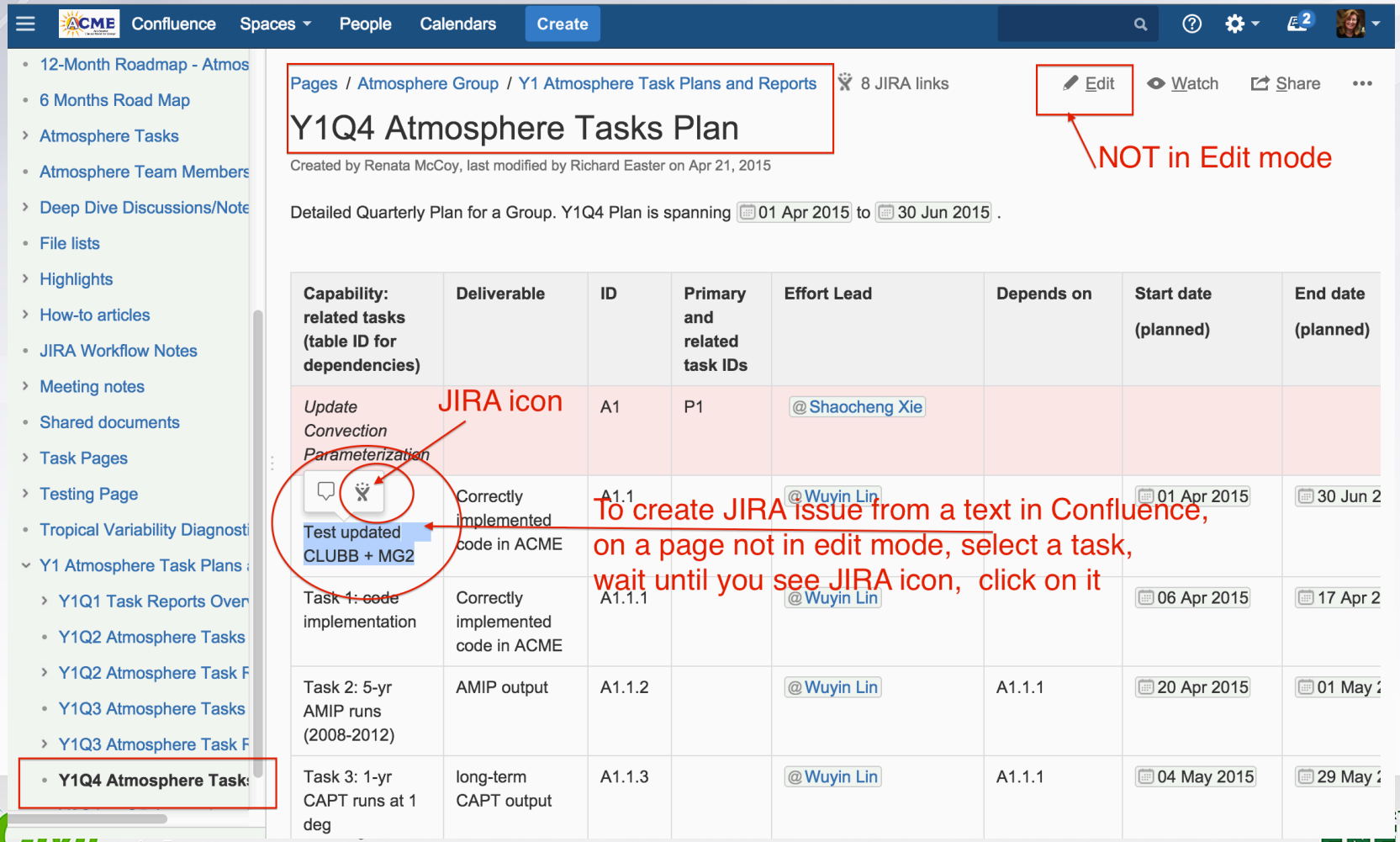
Creating Group's Quarterly Plans
Paste rows into quarterly plan table



Creating JIRA tasks from quarterly pages with one command



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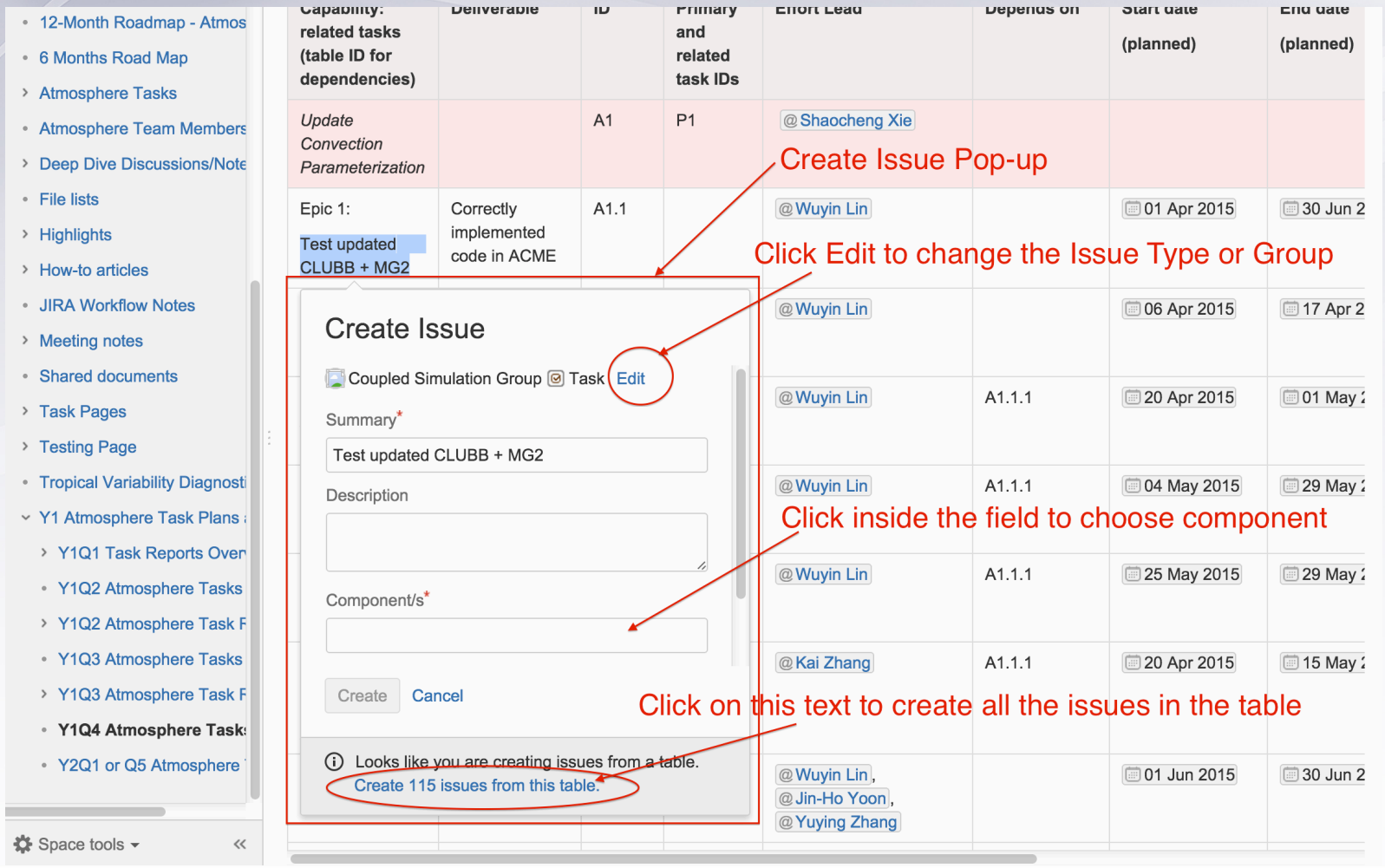

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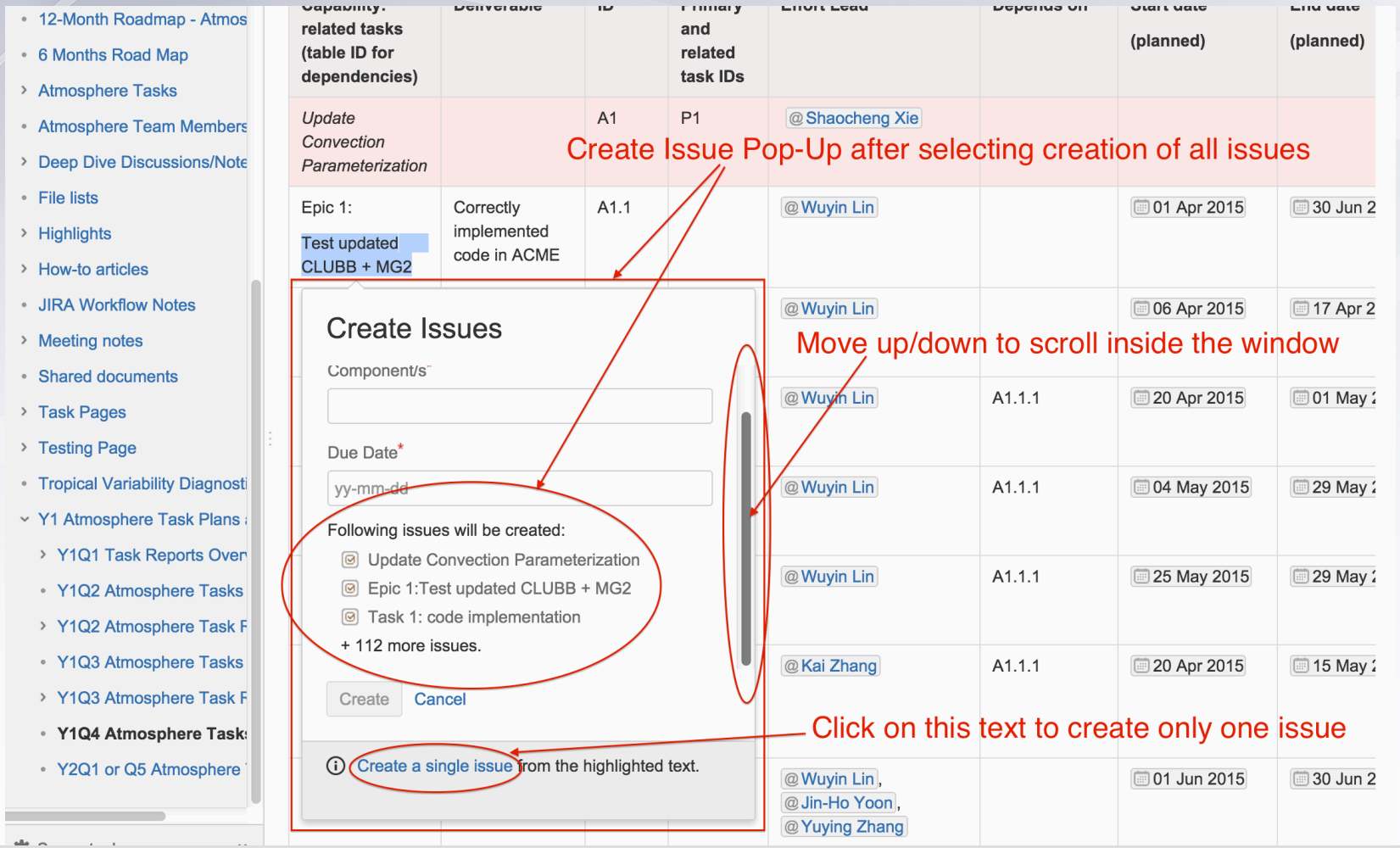

Creating JIRA tasks from quarterly pages with one command

- All issues are created based on the first column
- The issue title/summary will be exactly as in the text in first column
- All issues will have the metadata that you provided while creating issues, i.e. same component and same due date, they will all be of the same type ‘task’ is that’s whatyou chose
- You can use batch conversion to change metadata to the correct one

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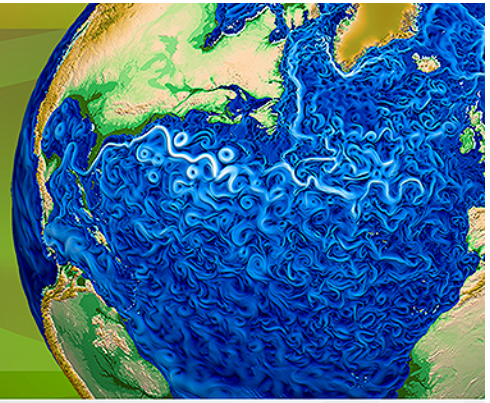

Working in JIRA Agile, Navigation

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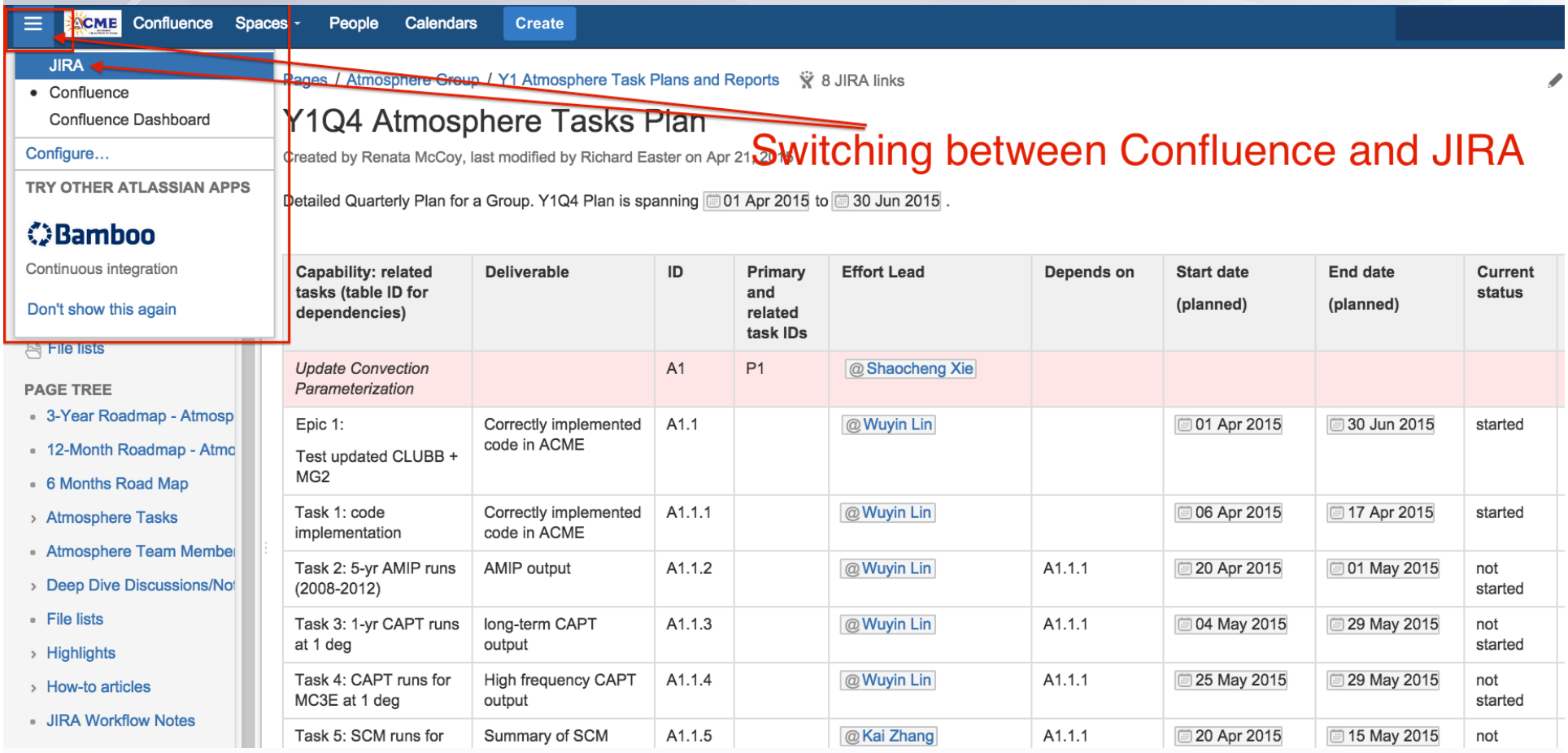
Confluence – JIRA Navigation Switching Between the Two



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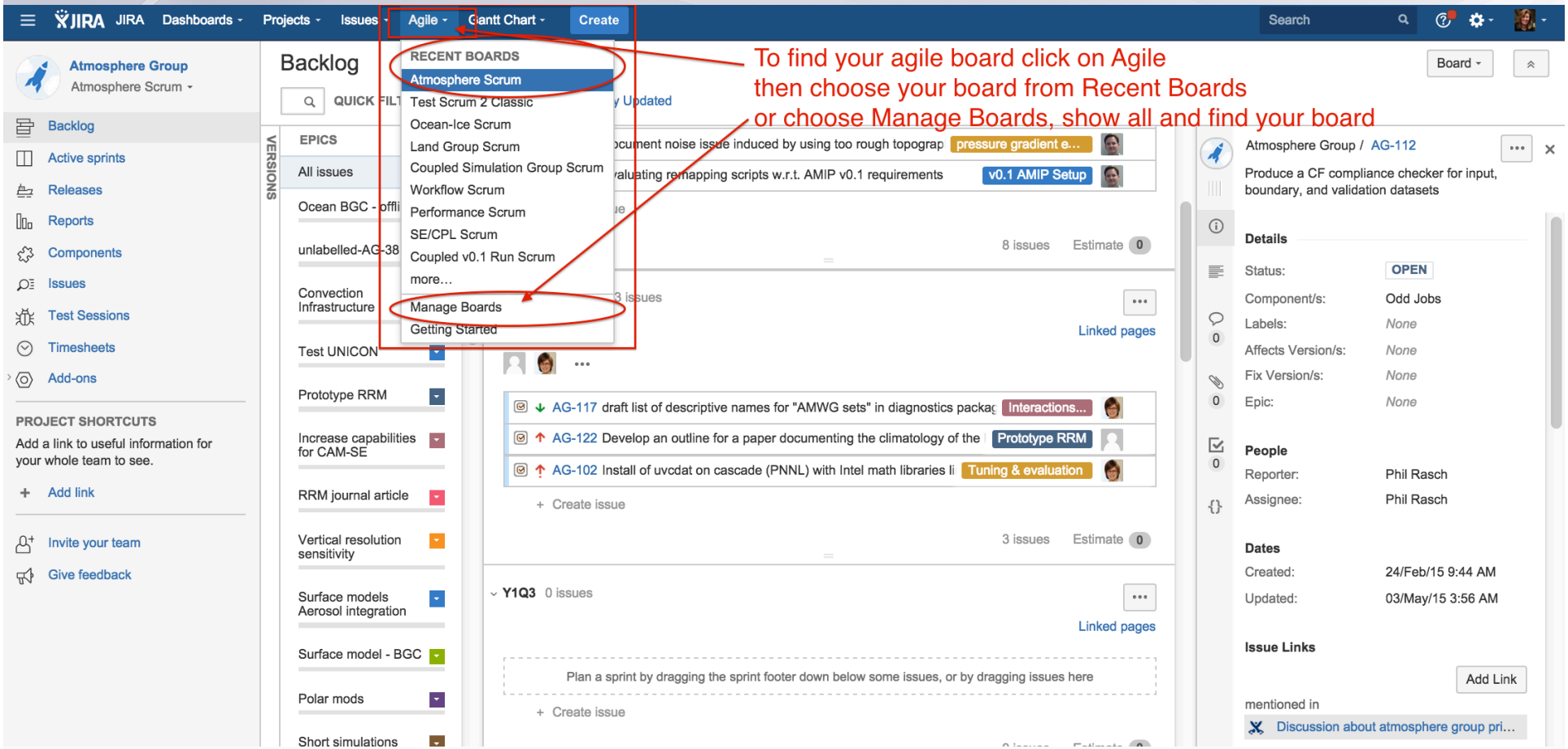
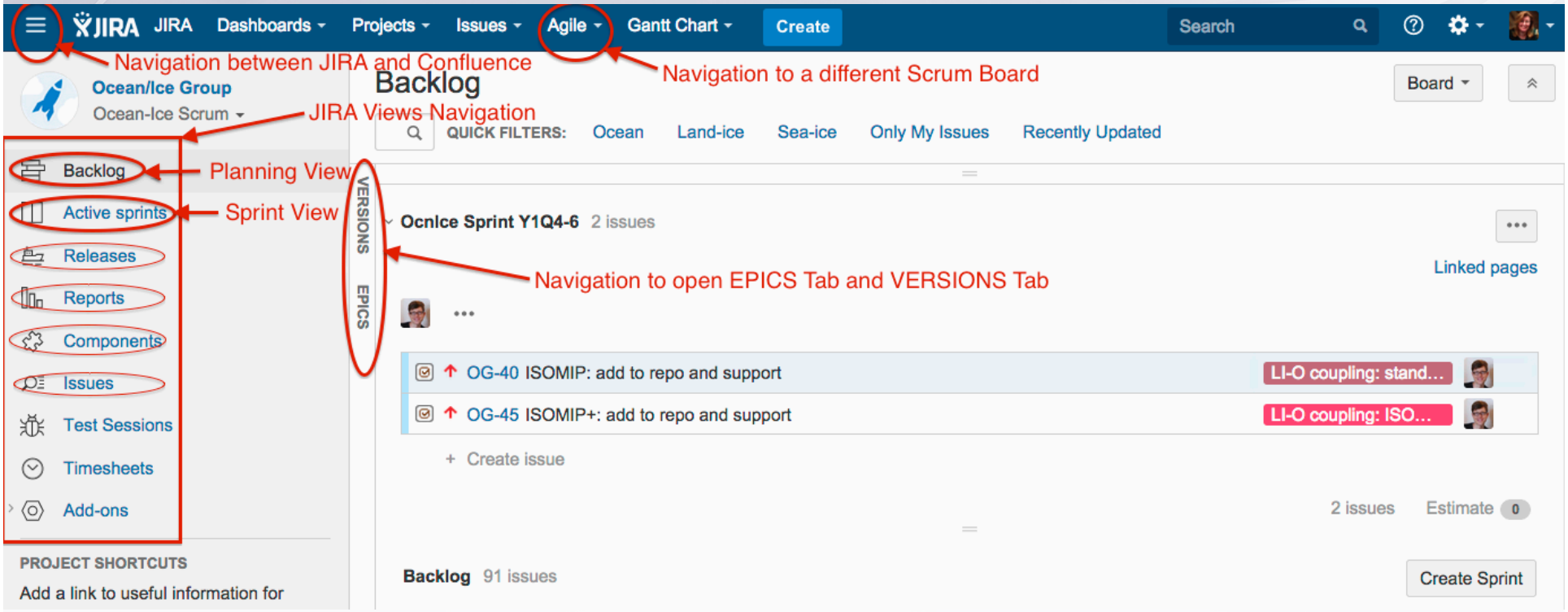
Update Convection Parameterization		A1	P1	@Shaocheng Xie				
Epic 1: Test updated CLUBB + MG2	Correctly implemented code in ACME	A1.1		@Wuyin Lin		01 Apr 2015	30 Jun 2015	started
Task 1: code implementation	Correctly implemented code in ACME	A1.1.1		@Wuyin Lin		06 Apr 2015	17 Apr 2015	started
Task 2: 5-yr AMIP runs (2008-2012)	AMIP output	A1.1.2		@Wuyin Lin	A1.1.1	20 Apr 2015	01 May 2015	not started
Task 3: 1-yr CAPT runs at 1 deg	long-term CAPT output	A1.1.3		@Wuyin Lin	A1.1.1	04 May 2015	29 May 2015	not started
Task 4: CAPT runs for MC3E at 1 deg	High frequency CAPT output	A1.1.4		@Wuyin Lin	A1.1.1	25 May 2015	29 May 2015	not started
Task 5: SCM runs for	Summary of SCM	A1.1.5		@Kai Zhang	A1.1.1	20 Apr 2015	15 May 2015	not

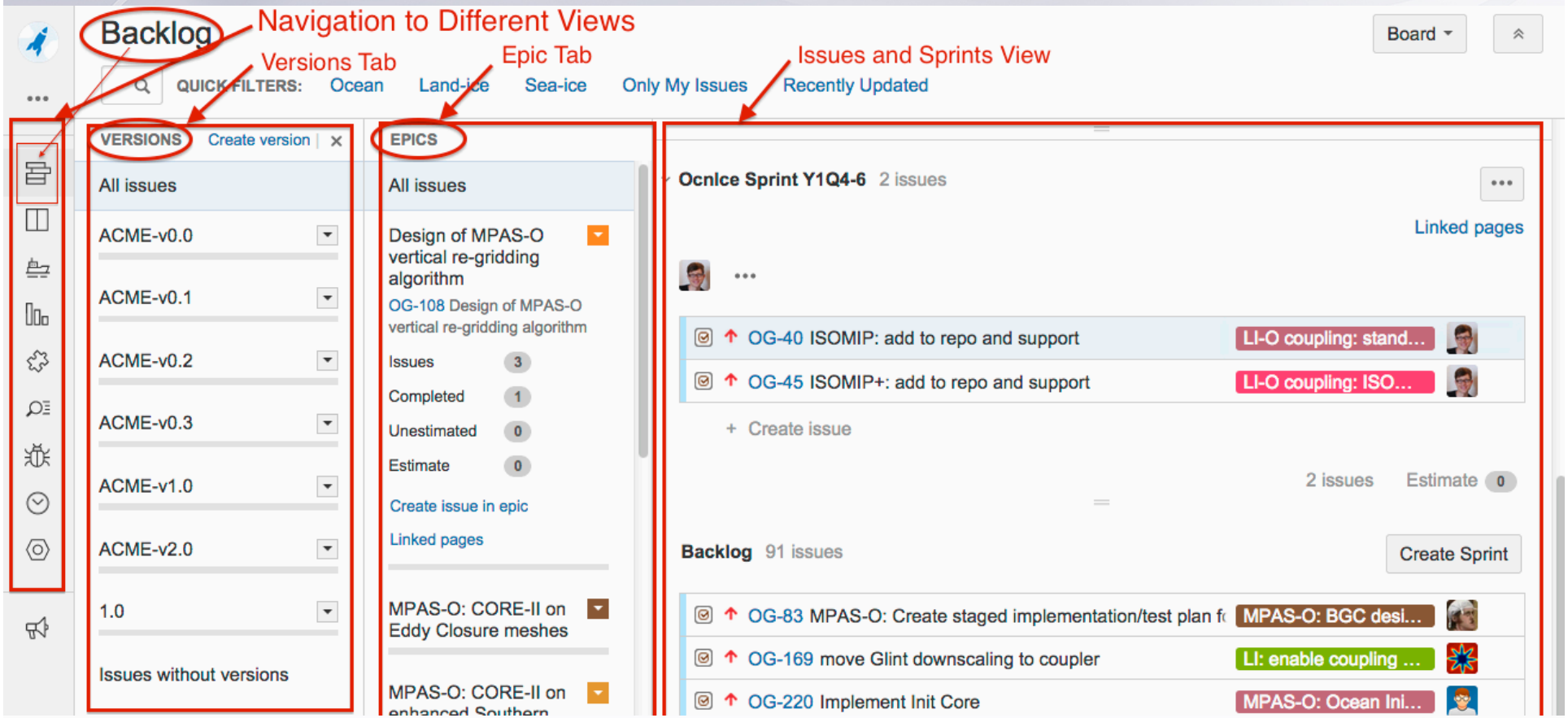
JIRA Agile Development
Finding Your Agile Board



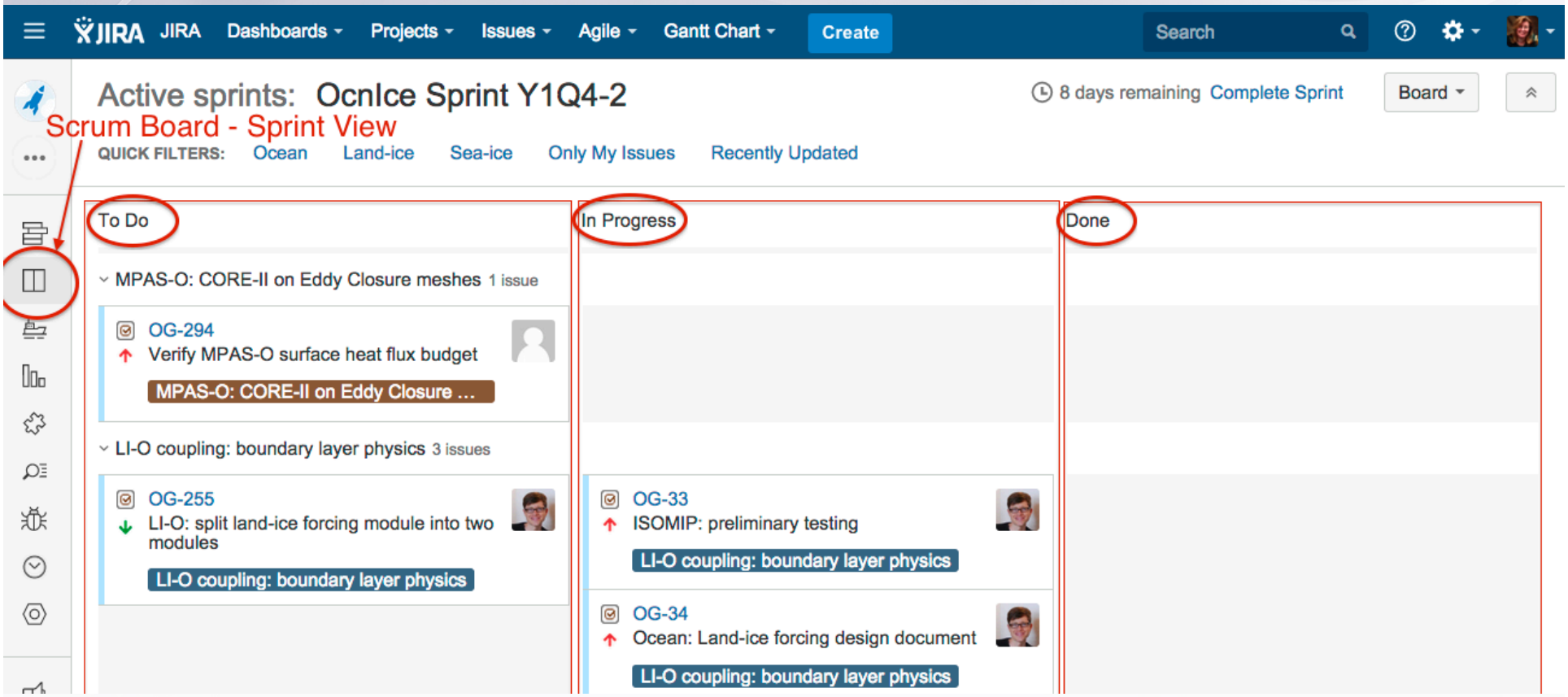
JIRA and Agile Boards Navigation Explanation



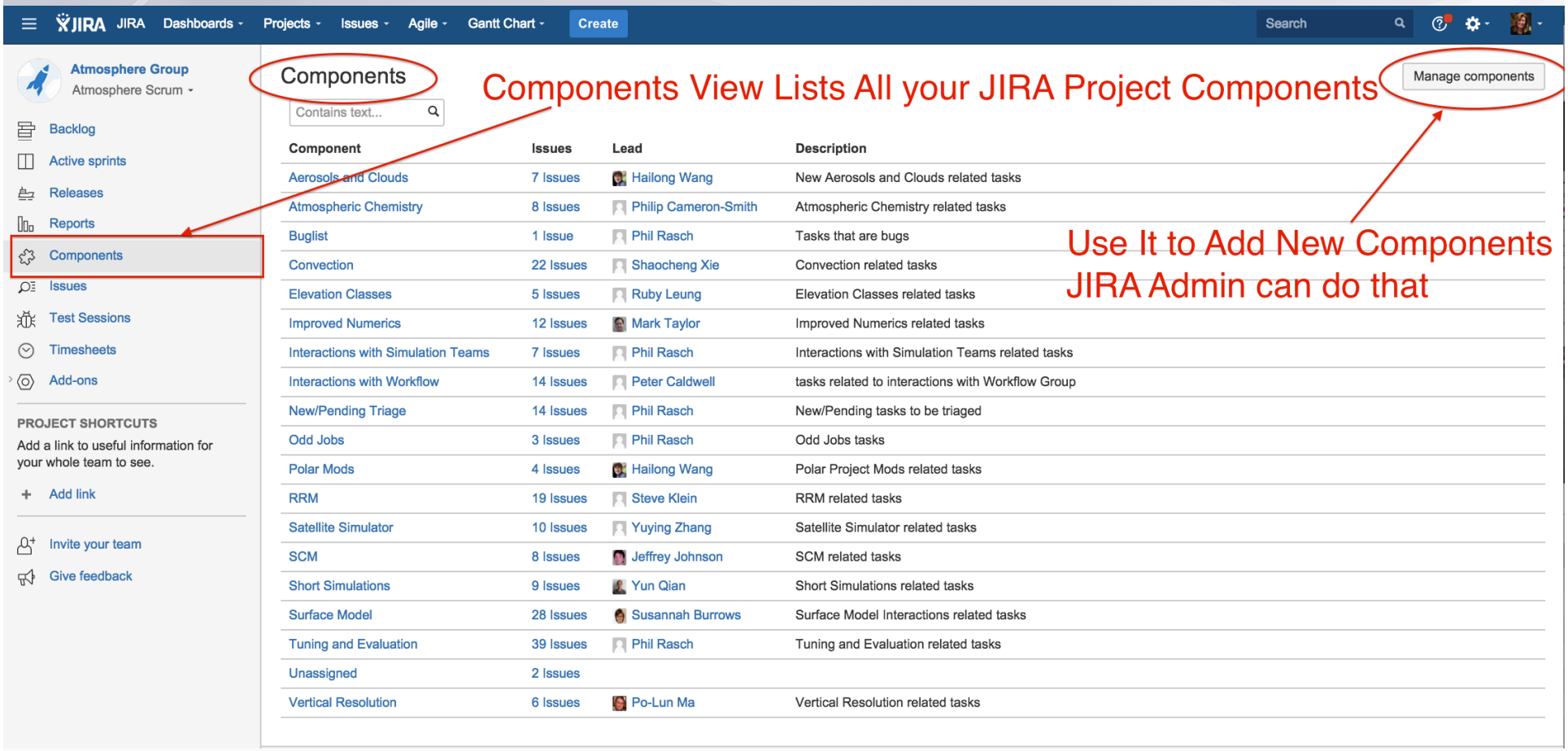
JIRA Agile Development
Backlog (Planning) View



JIRA Agile Development
Active Sprint (Working) View

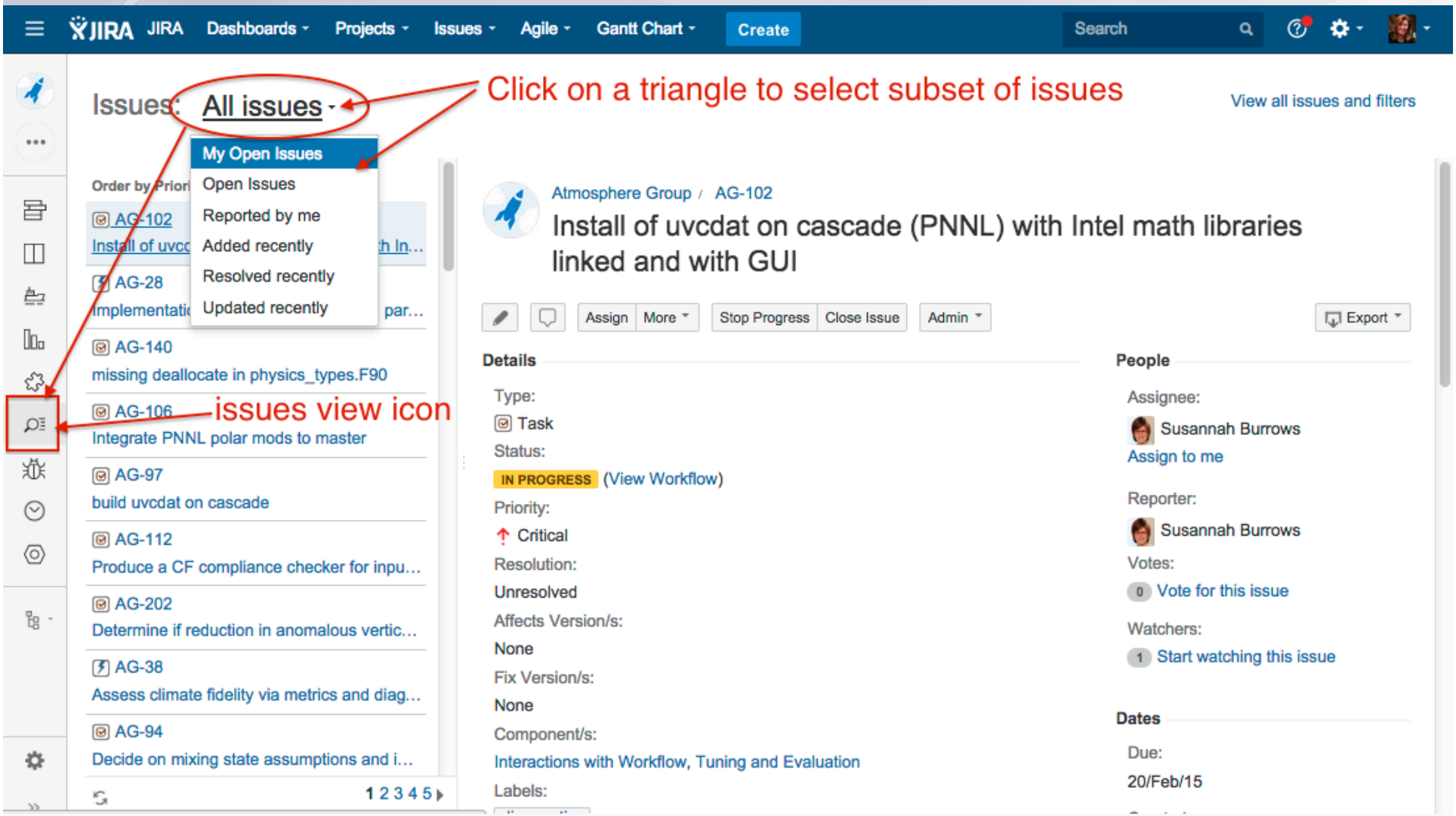


JIRA Agile Development
JIRA Components View



Component	Issues	Lead	Description
Aerosols and Clouds	7 Issues	Hailong Wang	New Aerosols and Clouds related tasks
Atmospheric Chemistry	8 Issues	Philip Cameron-Smith	Atmospheric Chemistry related tasks
Buglist	1 Issue	Phil Rasch	Tasks that are bugs
Convection	22 Issues	Shaocheng Xie	Convection related tasks
Elevation Classes	5 Issues	Ruby Leung	Elevation Classes related tasks
Improved Numerics	12 Issues	Mark Taylor	Improved Numerics related tasks
Interactions with Simulation Teams	7 Issues	Phil Rasch	Interactions with Simulation Teams related tasks
Interactions with Workflow	14 Issues	Peter Caldwell	tasks related to interactions with Workflow Group
New/Pending Triage	14 Issues	Phil Rasch	New/Pending tasks to be triaged
Odd Jobs	3 Issues	Phil Rasch	Odd Jobs tasks
Polar Mods	4 Issues	Hailong Wang	Polar Project Mods related tasks
RRM	19 Issues	Steve Klein	RRM related tasks
Satellite Simulator	10 Issues	Yuying Zhang	Satellite Simulator related tasks
SCM	8 Issues	Jeffrey Johnson	SCM related tasks
Short Simulations	9 Issues	Yun Qian	Short Simulations related tasks
Surface Model	28 Issues	Susannah Burrows	Surface Model Interactions related tasks
Tuning and Evaluation	39 Issues	Phil Rasch	Tuning and Evaluation related tasks
Unassigned	2 Issues		
Vertical Resolution	6 Issues	Po-Lun Ma	Vertical Resolution related tasks

JIRA Agile Development
JIRA Issues View



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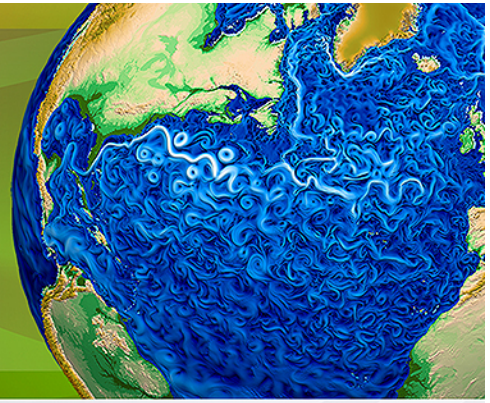

JIRA Agile - Working with Sprints

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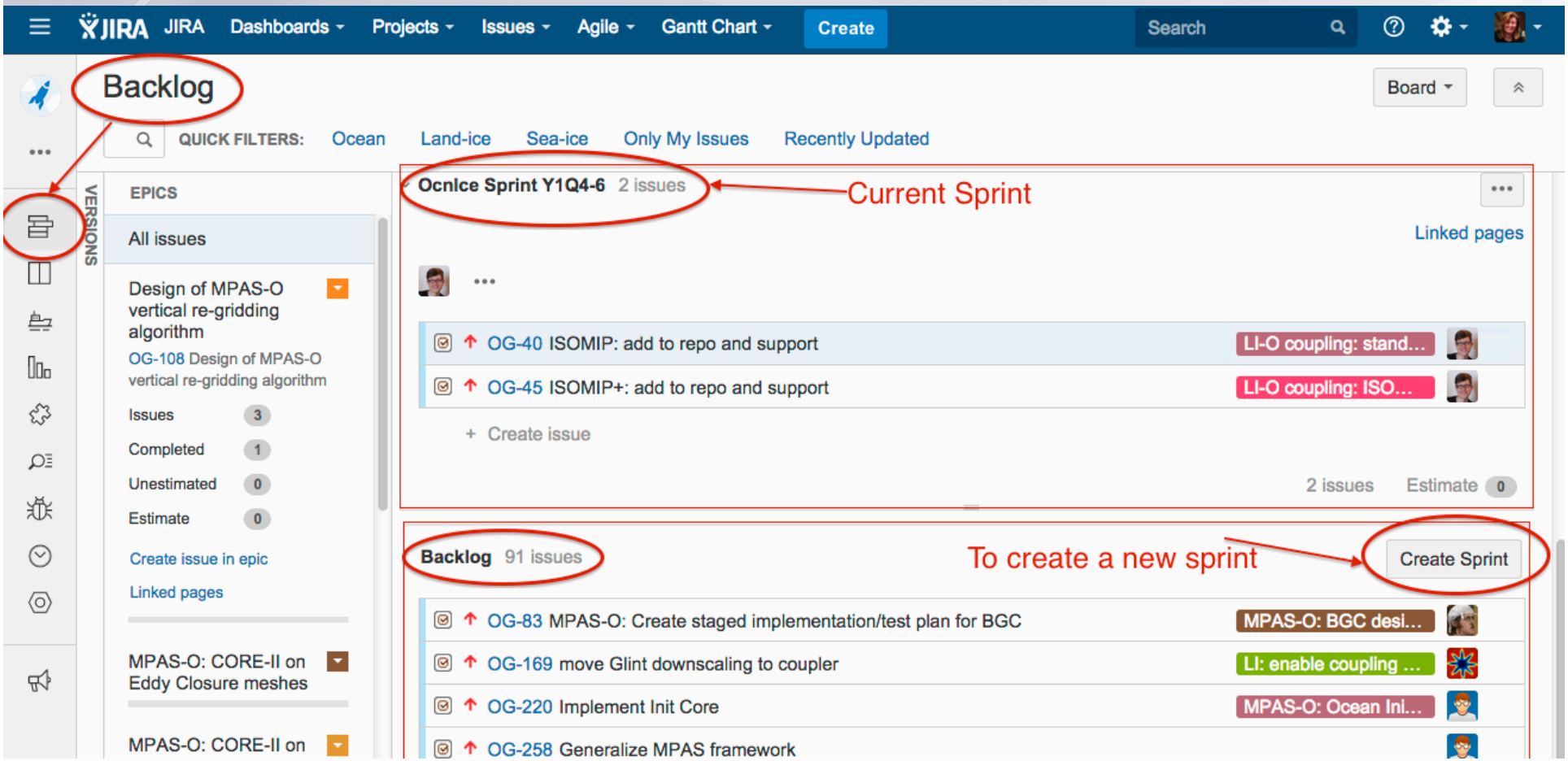
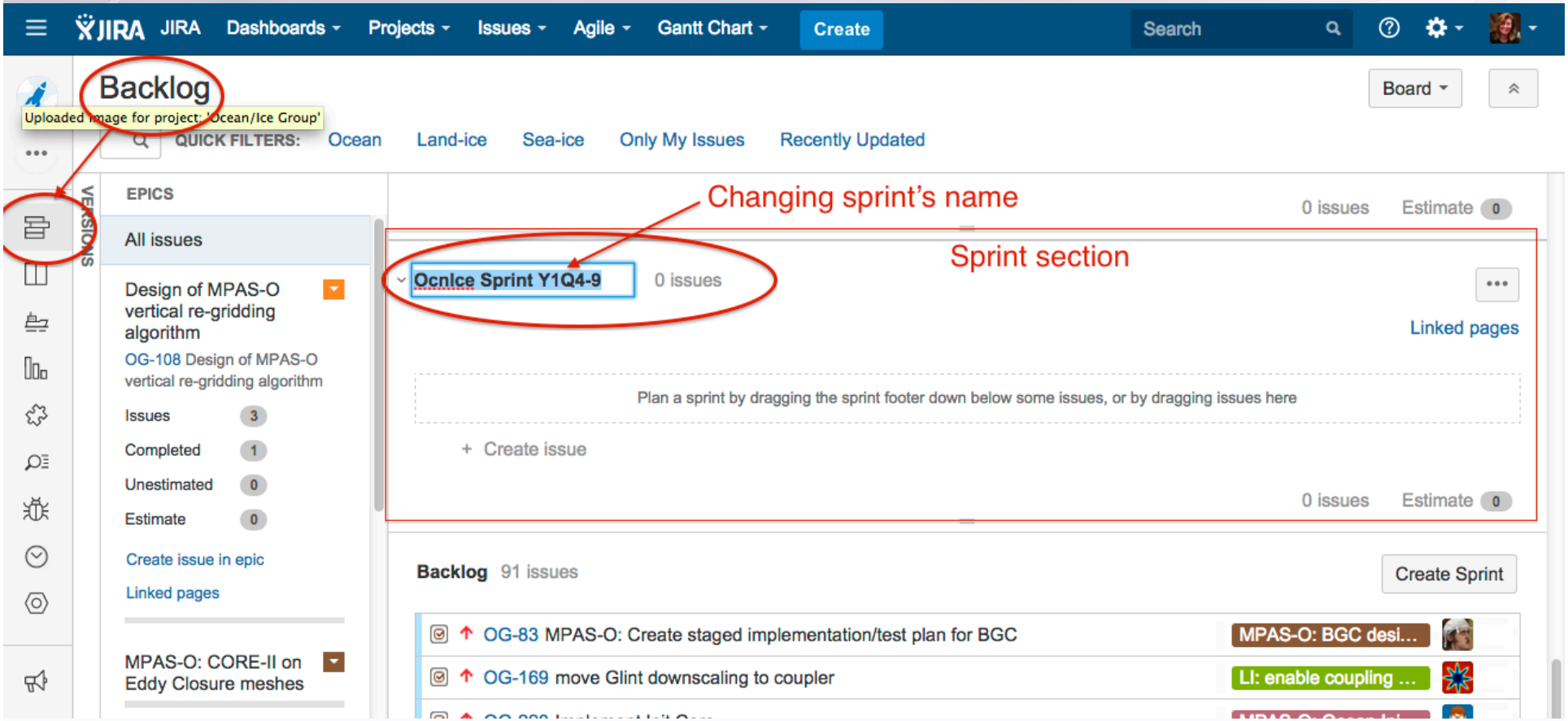
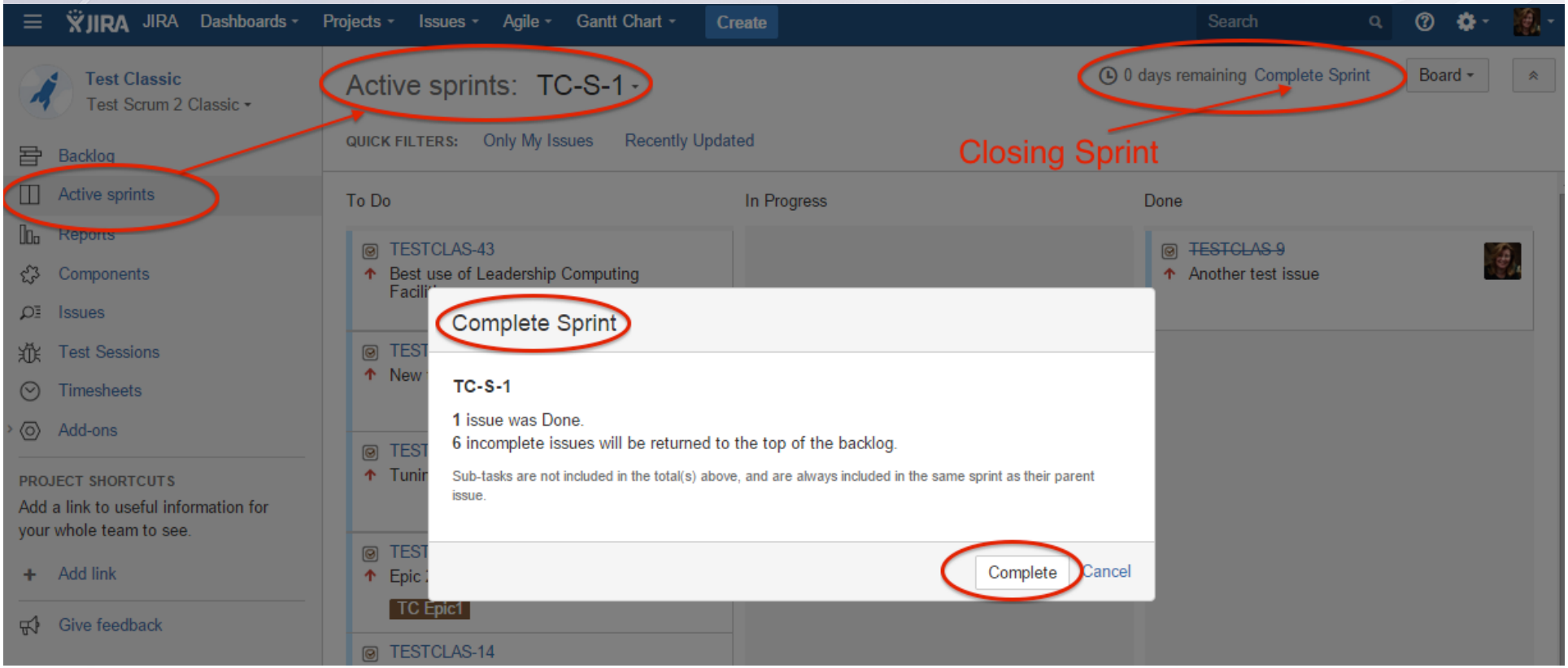
JIRA – Working with Sprints
Creating a New Sprint



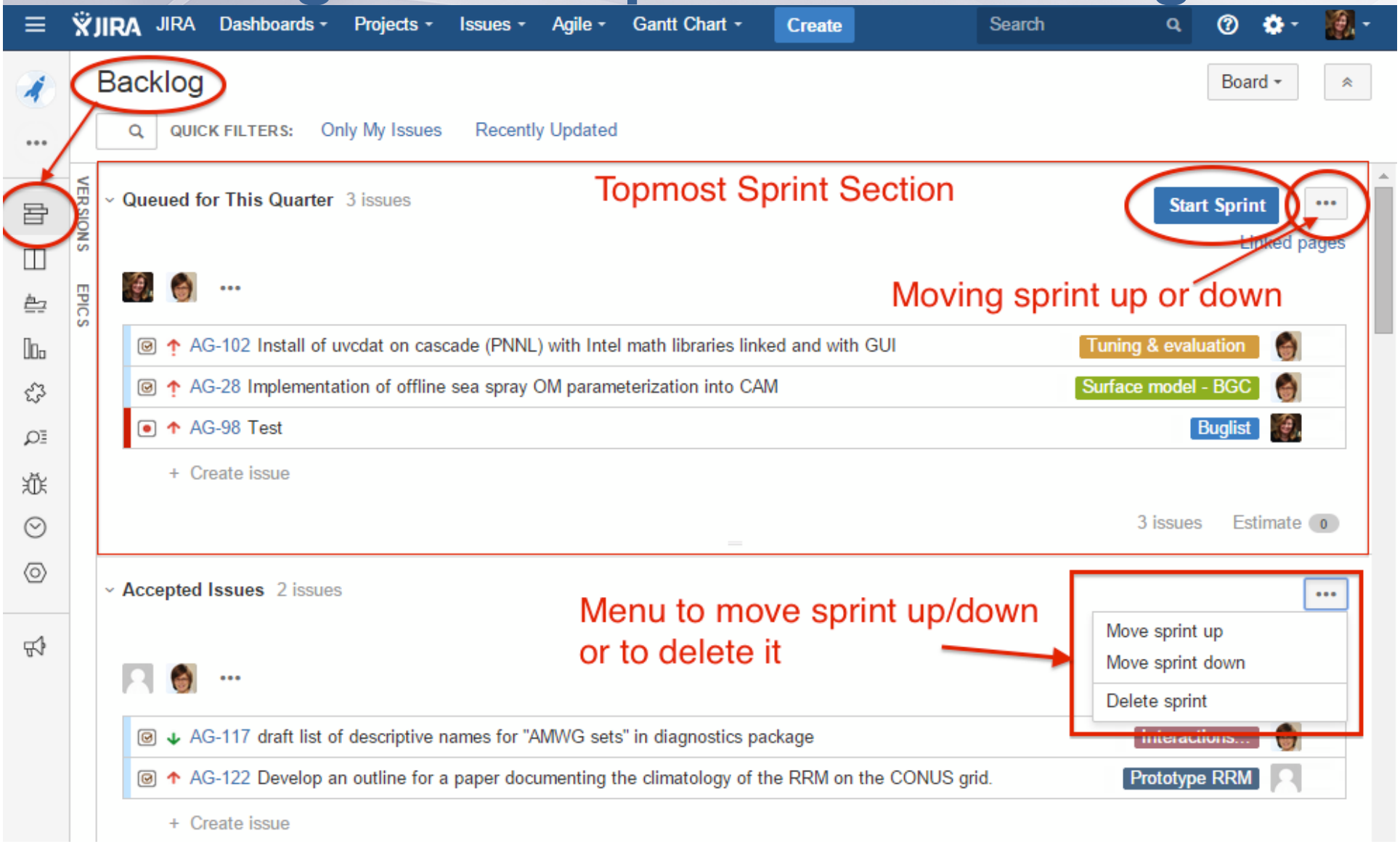
JIRA – Working with Sprints
Changing Sprints Name



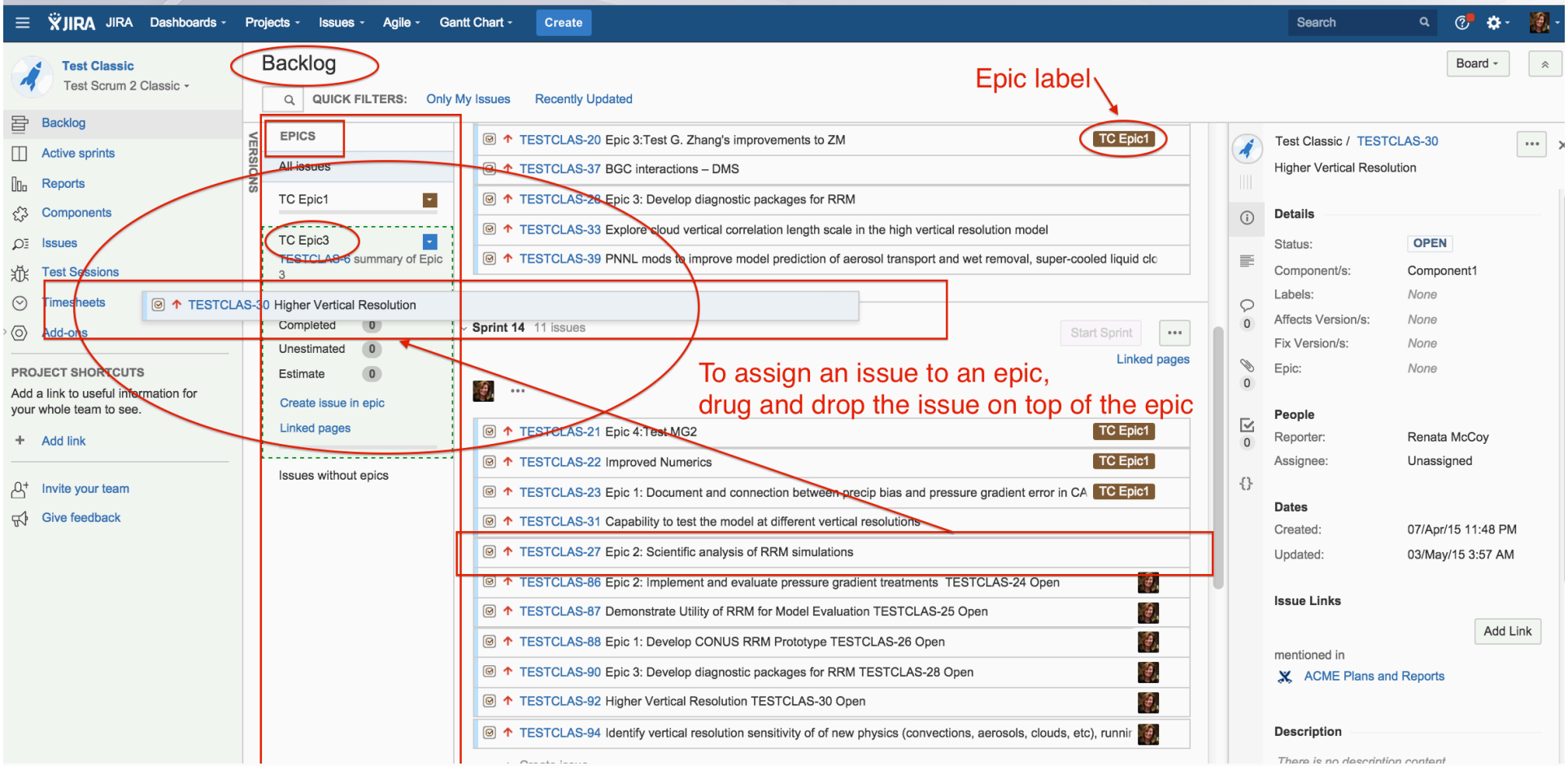
JIRA – Working with Sprints
Completing (Closing) a Sprint



JIRA – Working with Sprints
Starting a New Sprint And Moving It



JIRA – Working with Sprints
Assigning Epics, Moving Issue to a Sprint



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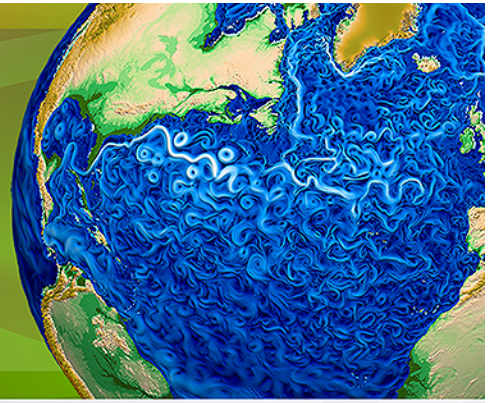

JIRA Agile – Editing Issues

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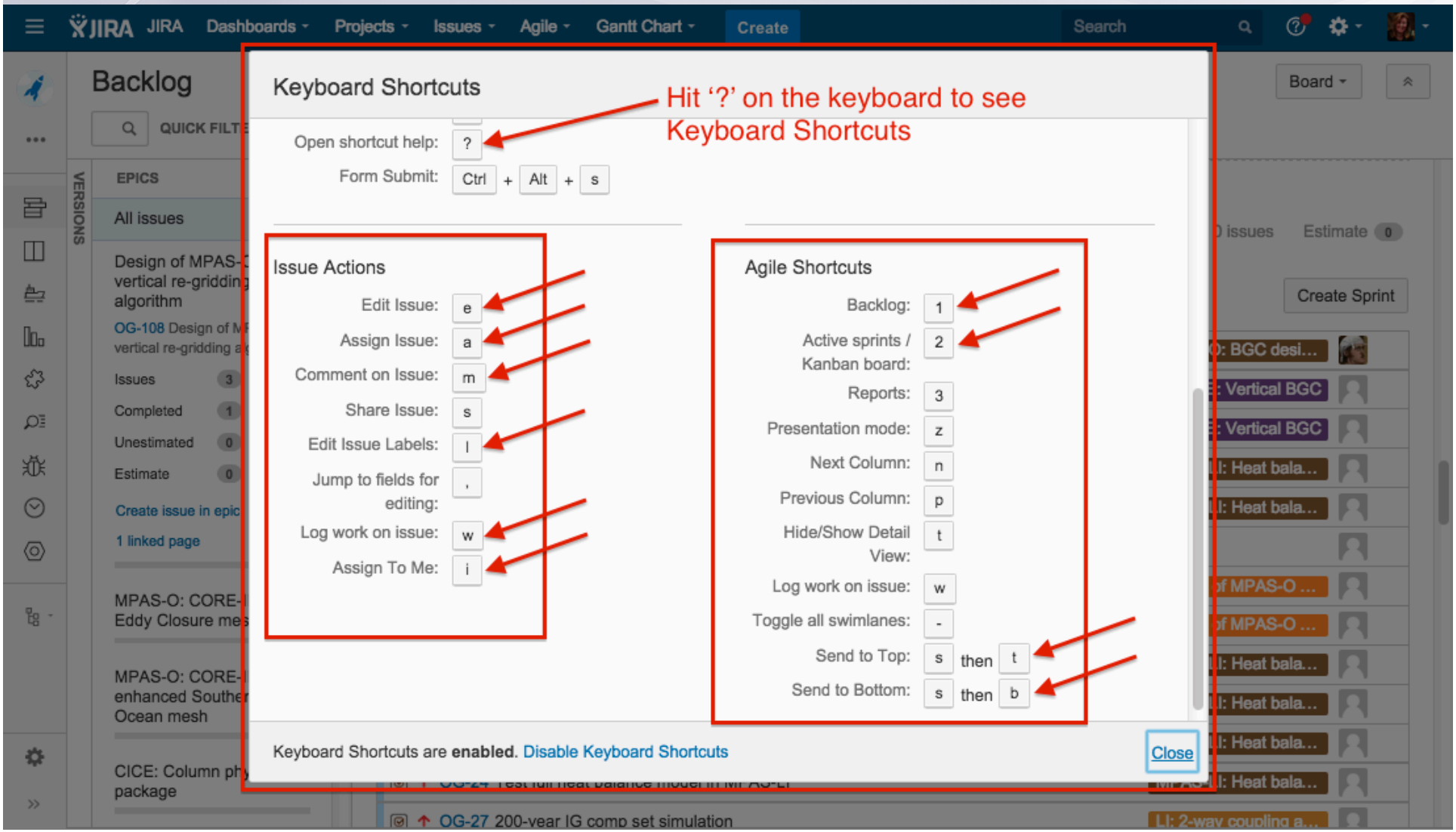
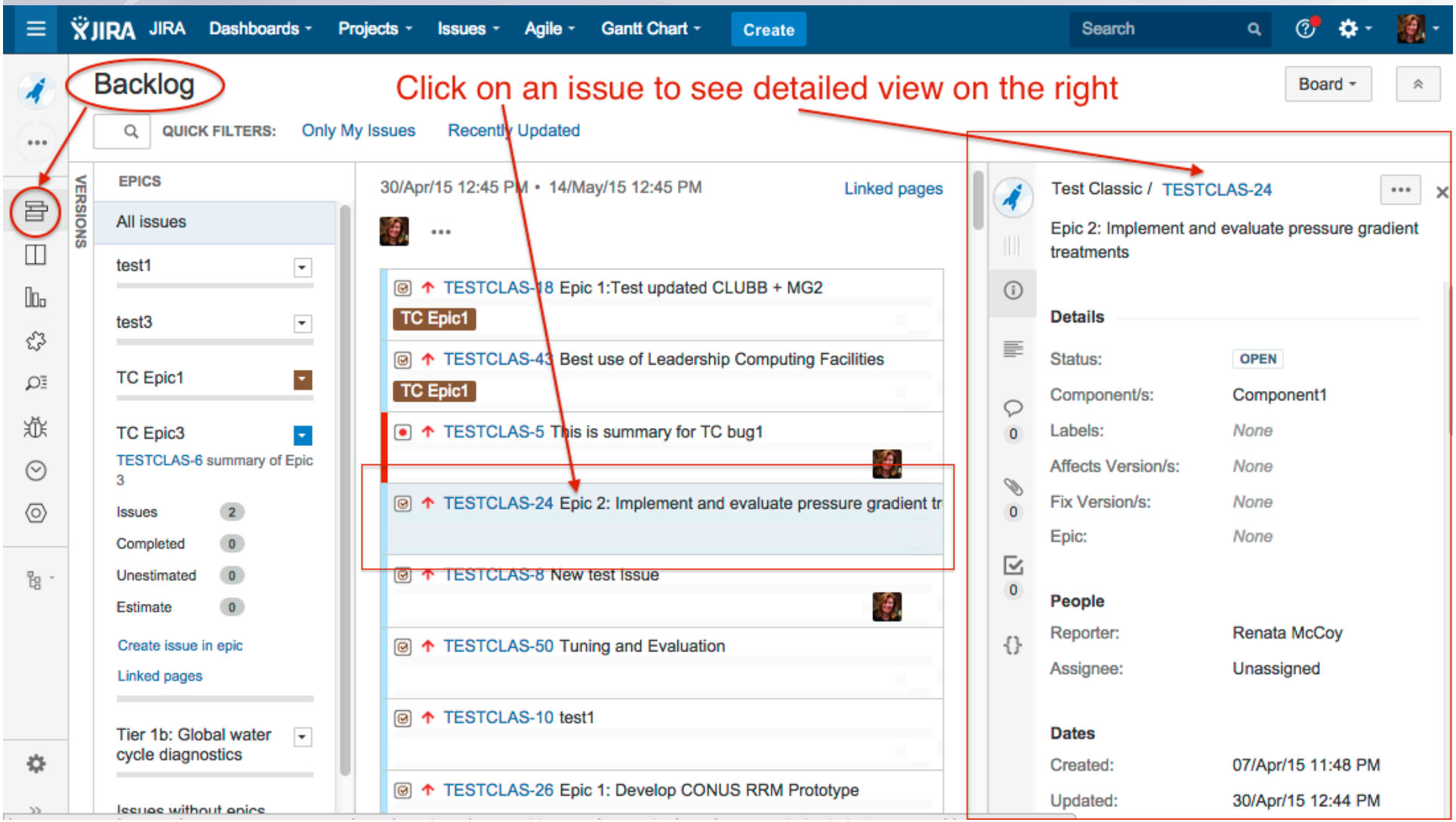
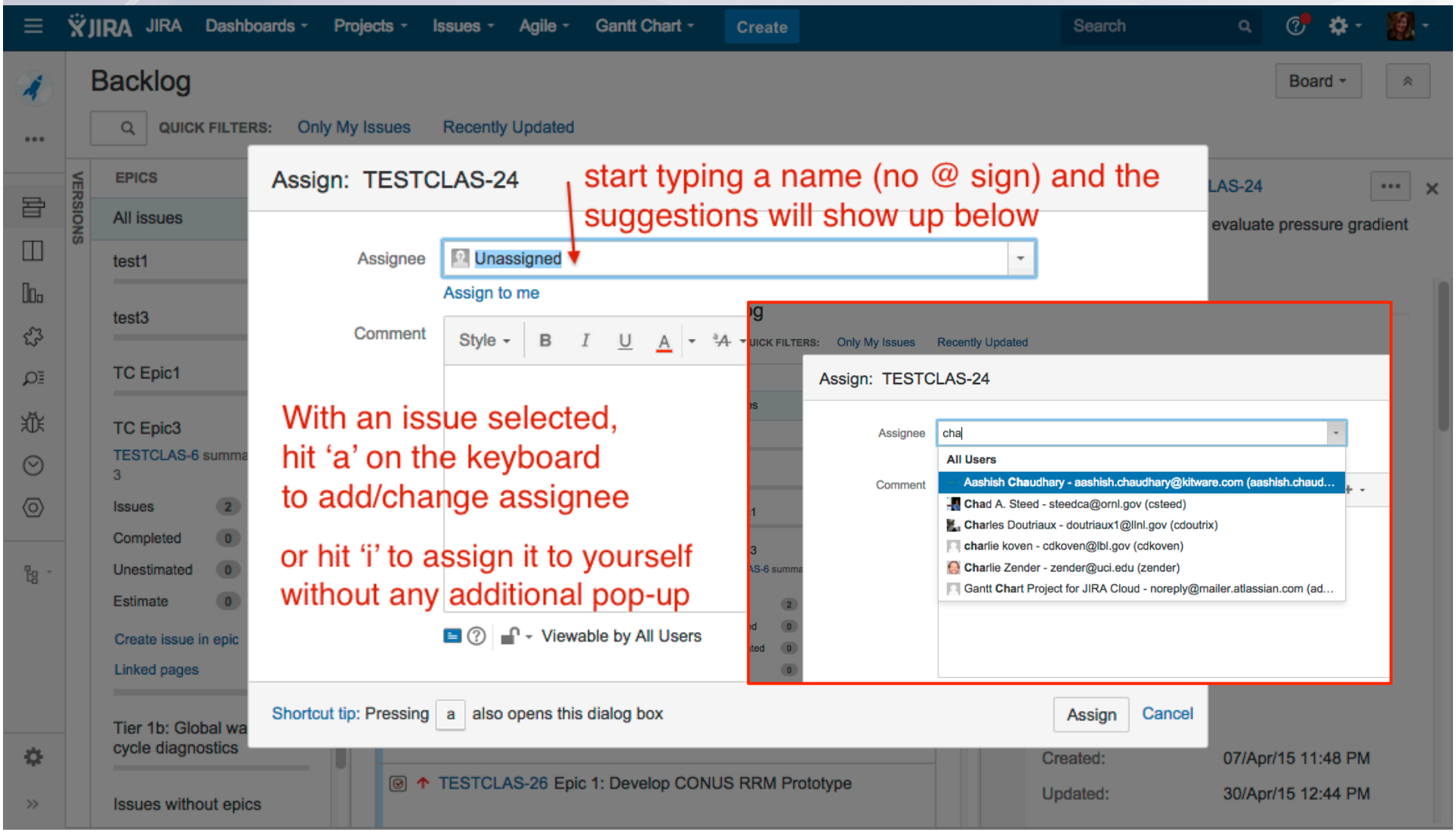
JIRA Agile - Changing metadata Keyboard Shortcuts



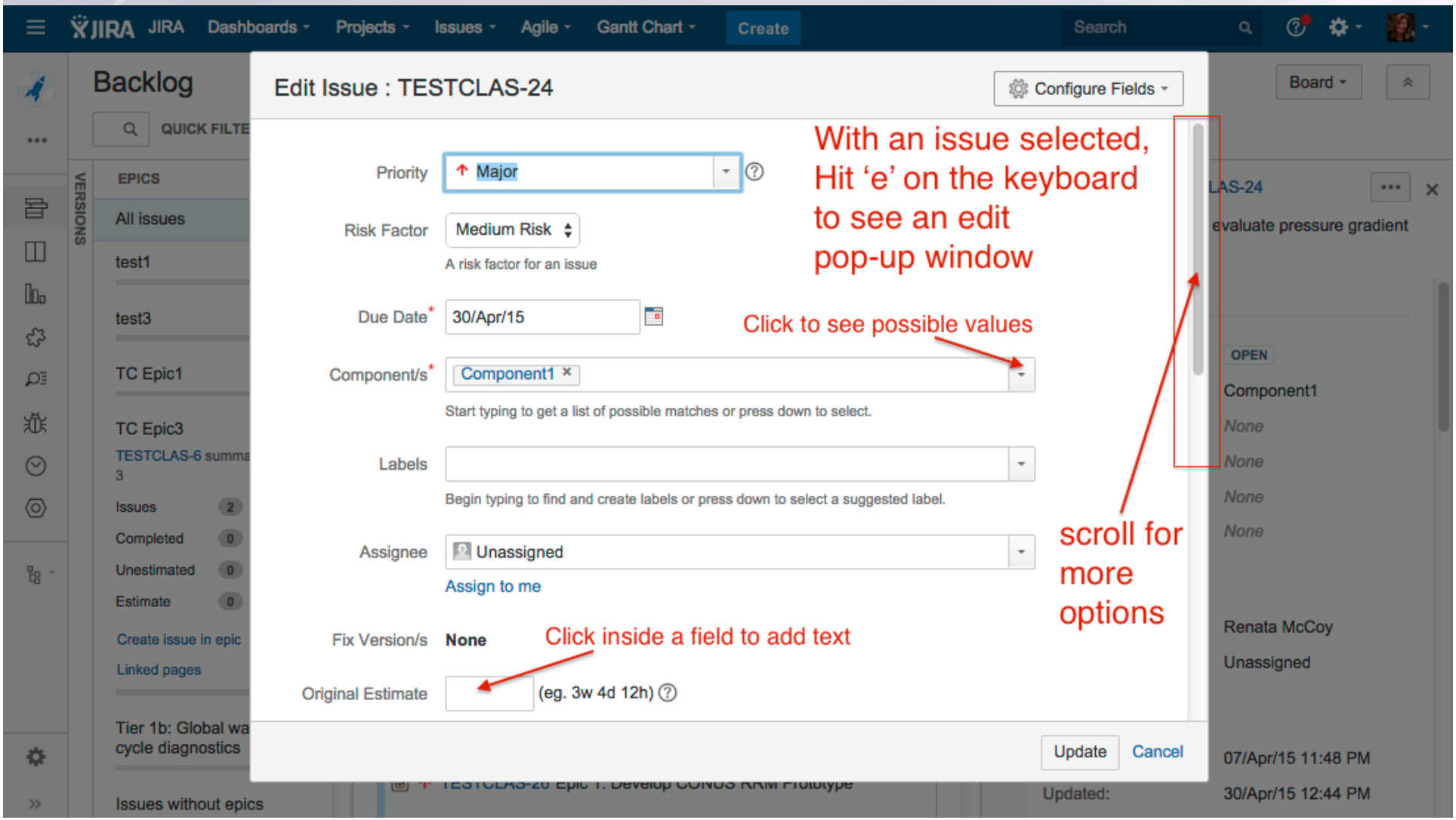
JIRA Agile - Changing metadata Detailed View of a Task



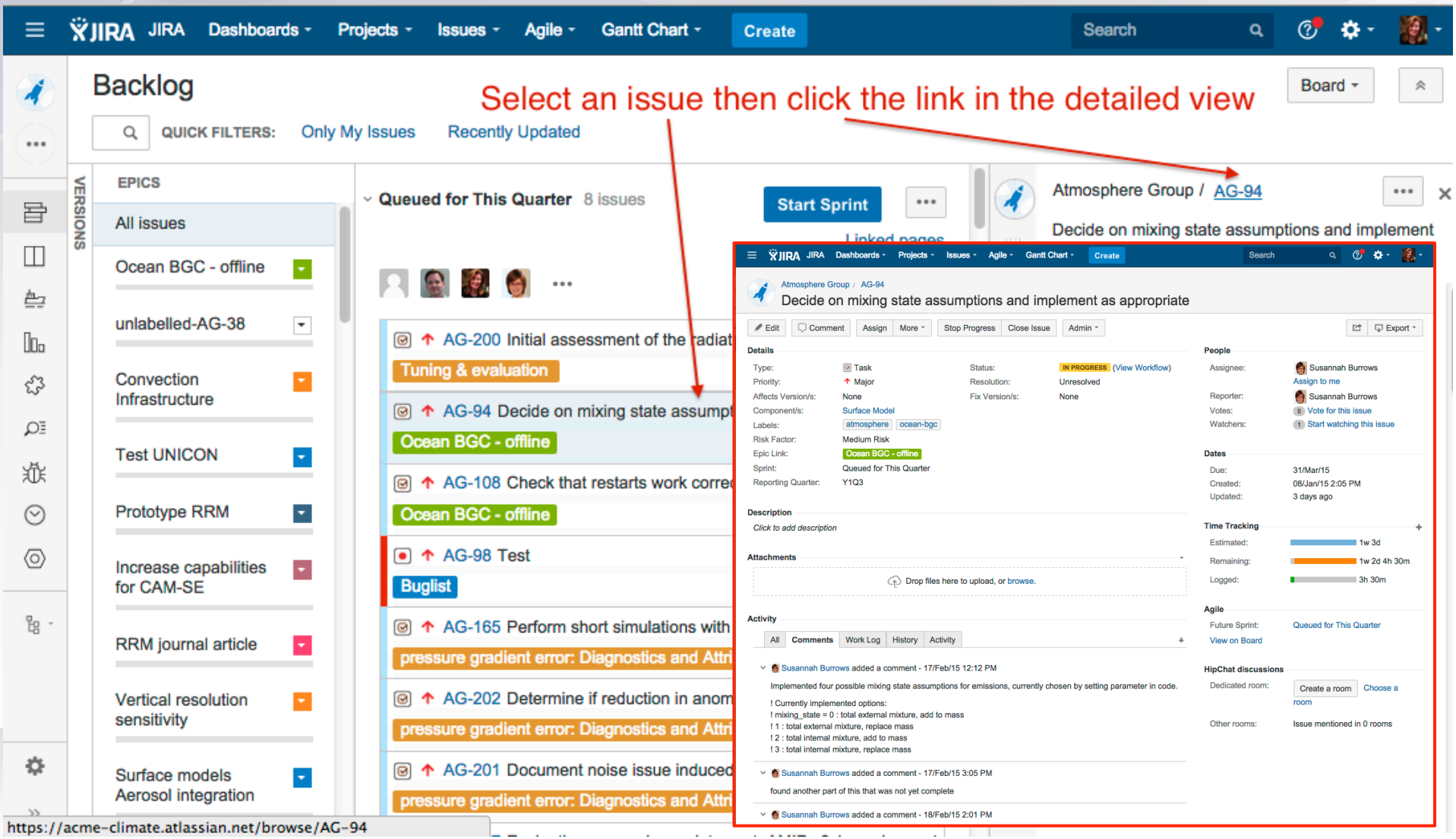
JIRA Agile - Changing metadata
Add/Change Assignee – ‘a’ or ‘i’



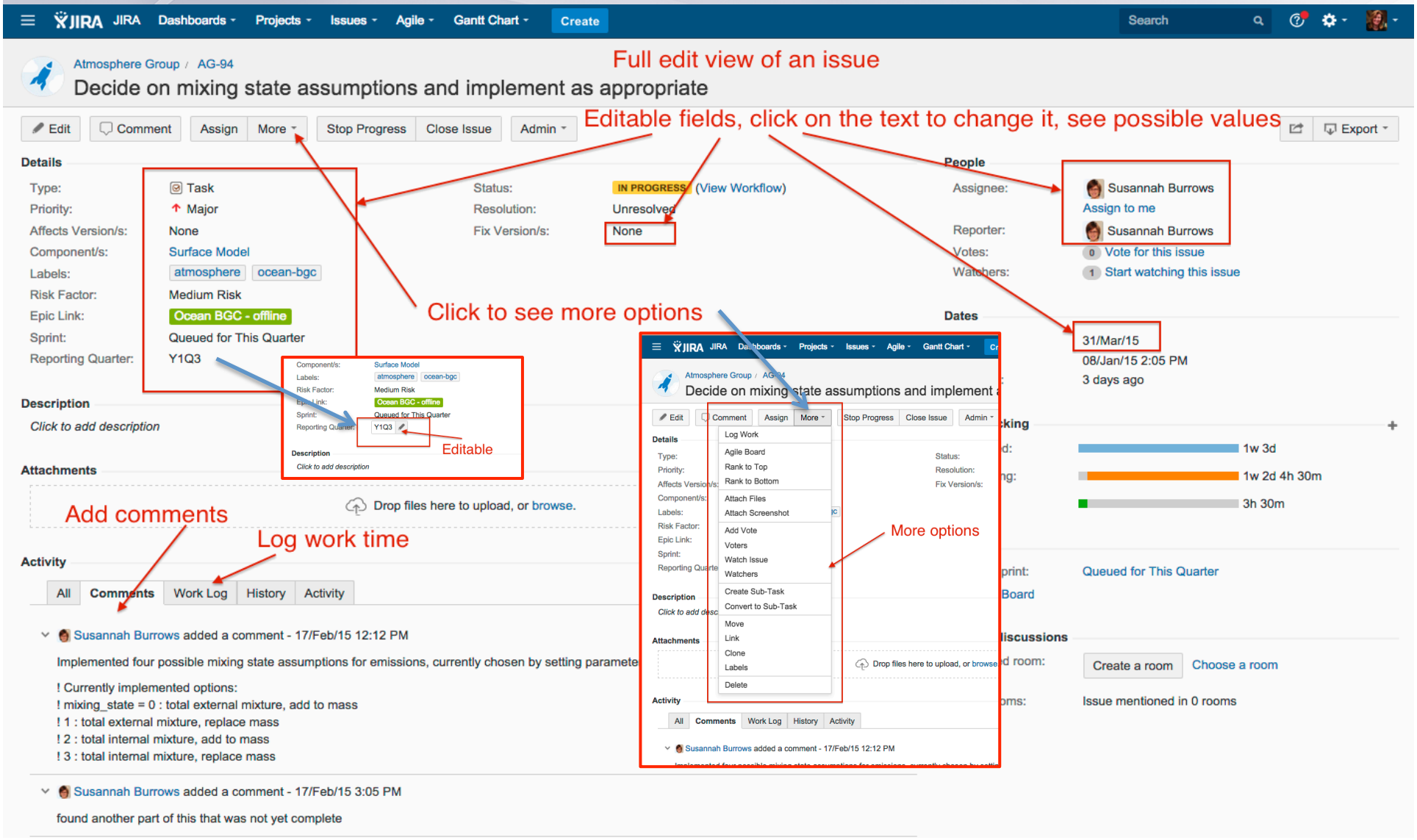
JIRA Agile - Changing metadata
Editing a Task – ‘e’



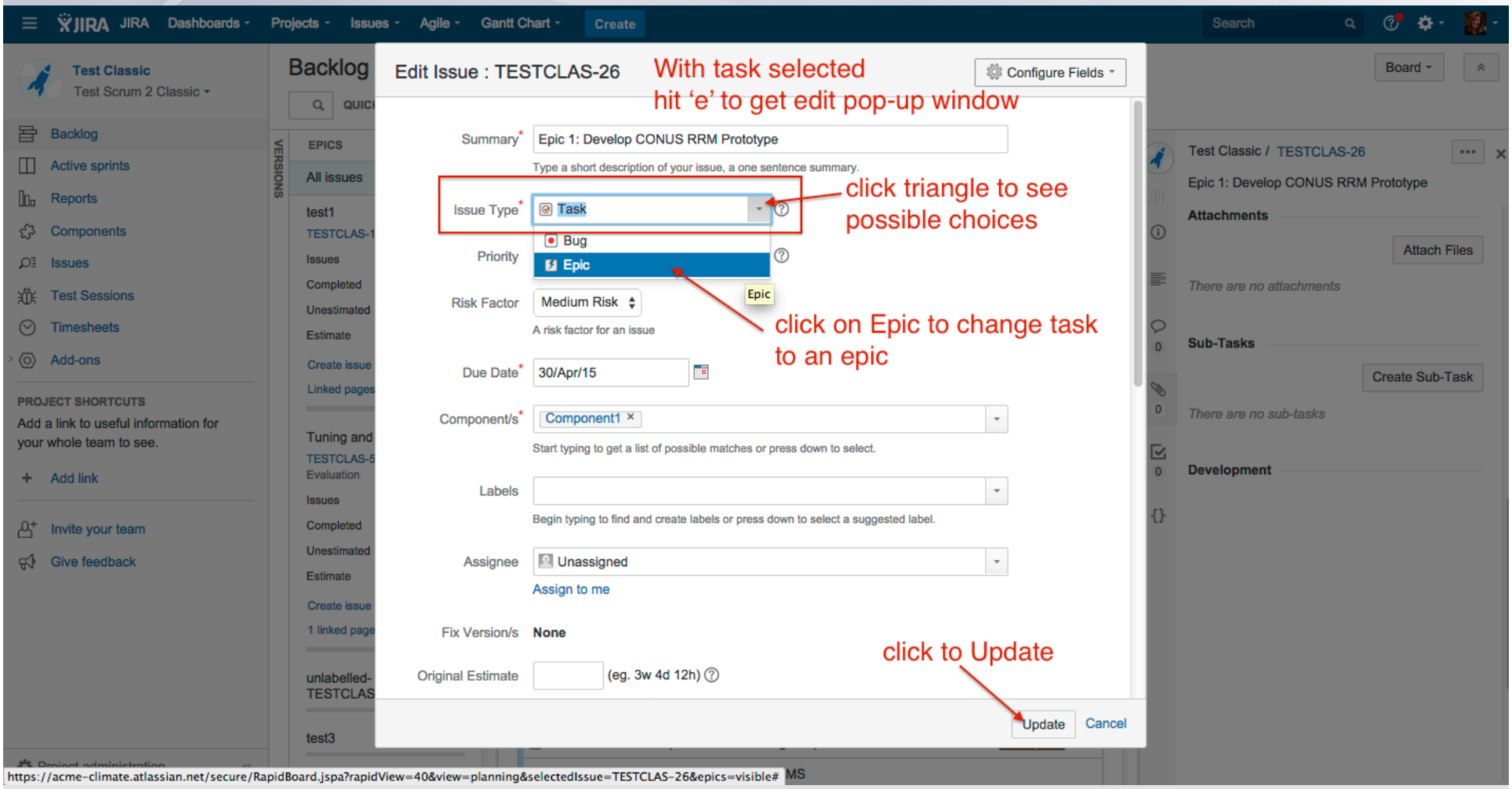
JIRA Agile - Changing metadata
Editing a Task – full issue edit view



JIRA Agile - Changing metadata
Editing a Task – full issue edit view



JIRA Agile - Changing metadata
Changing Task into Epic #1



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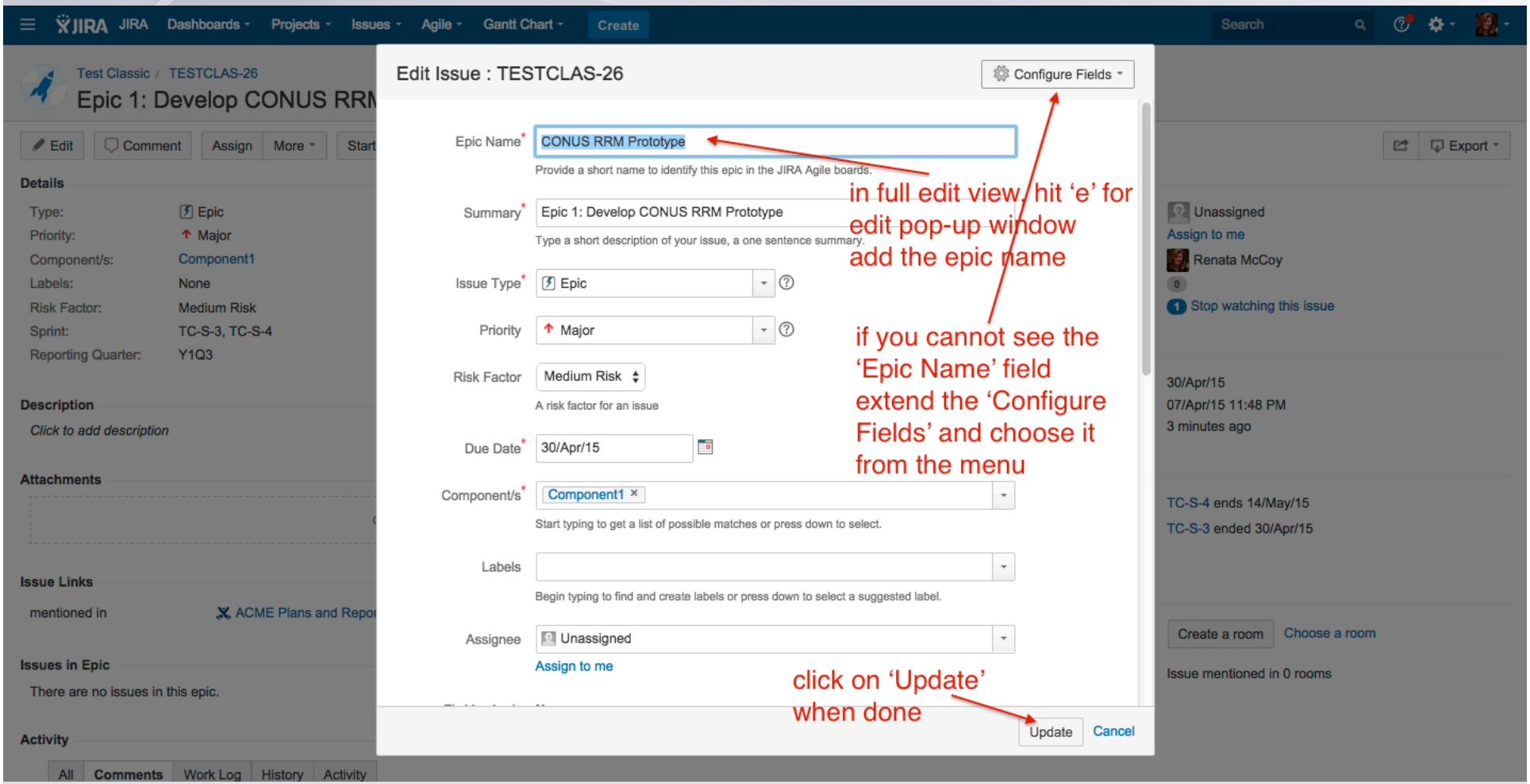
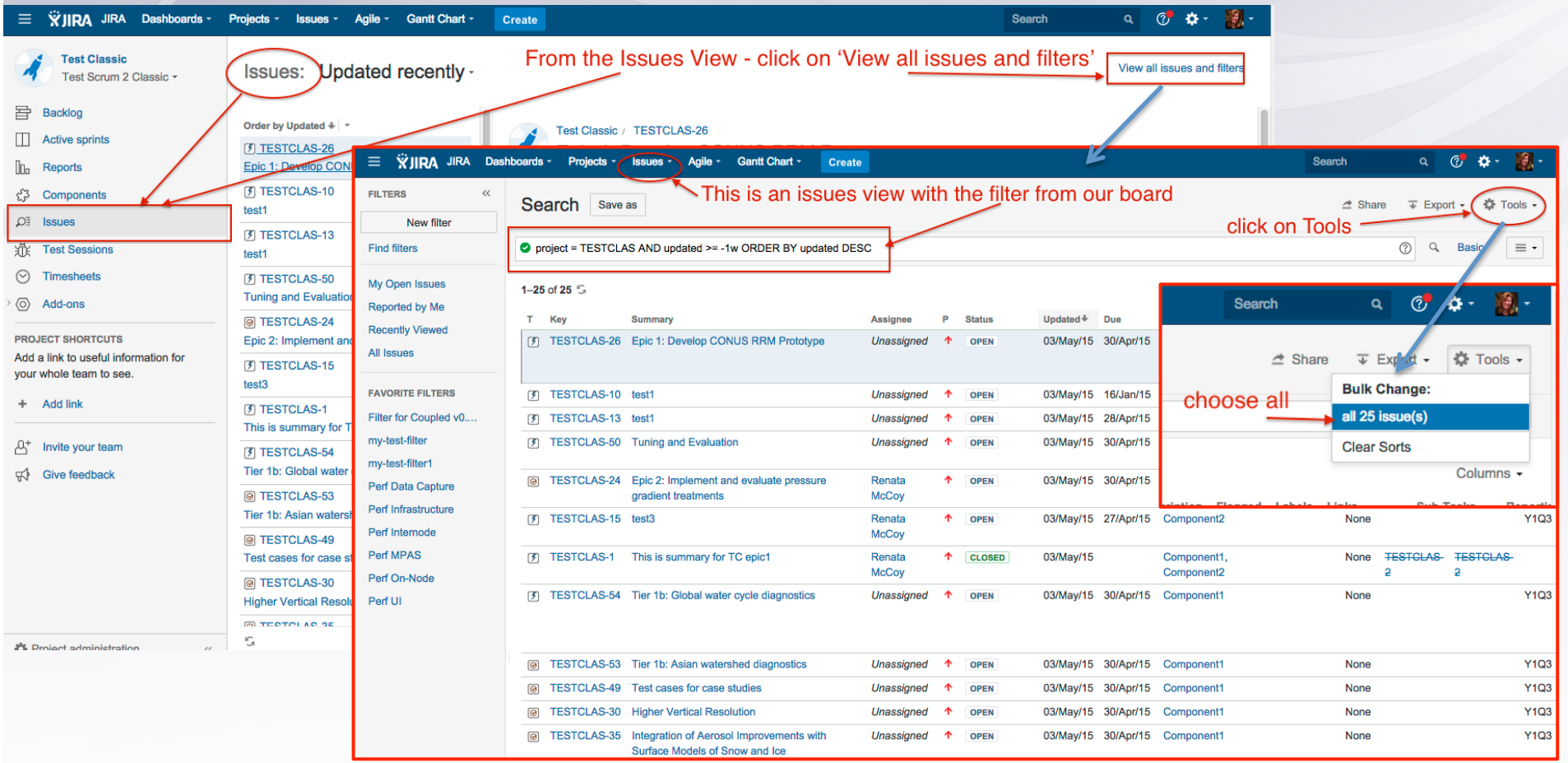
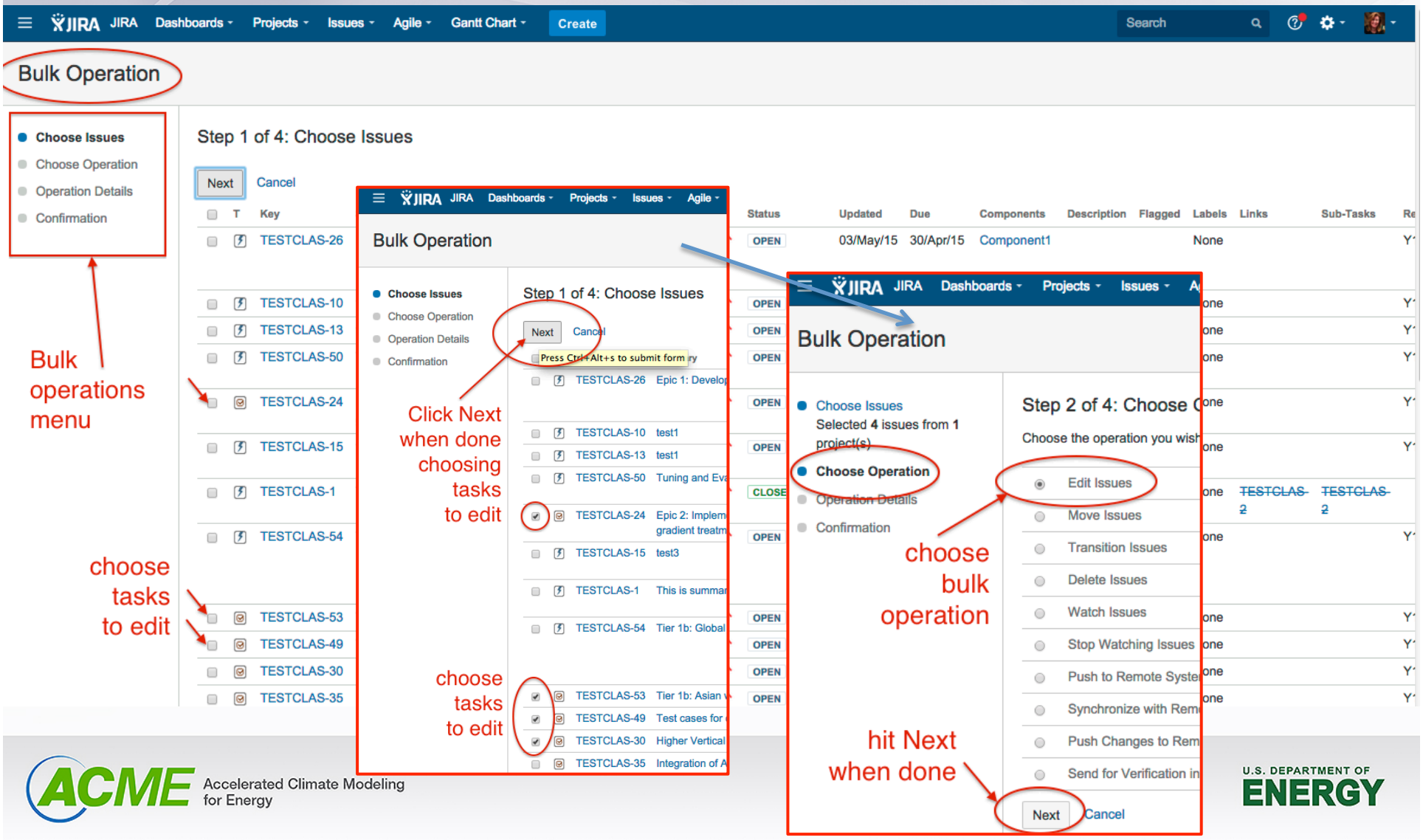
JIRA Agile - Changing metadata Changing Task into Epic #2



JIRA Agile – Changing metadata Bulk Editing #1



JIRA Agile – Changing metadata
Bulk Editing #2



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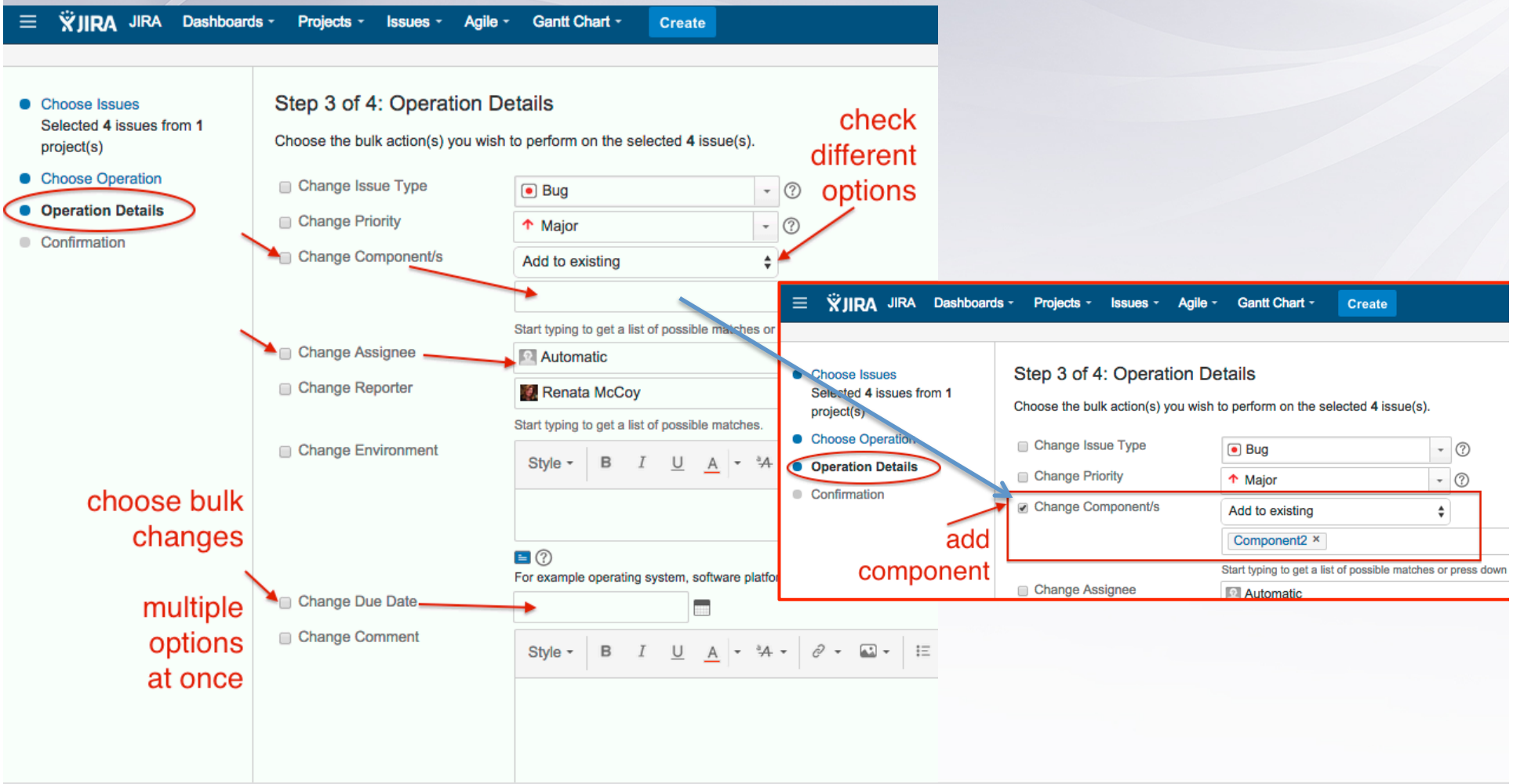
JIRA Agile – Changing metadata Bulk Editing #3



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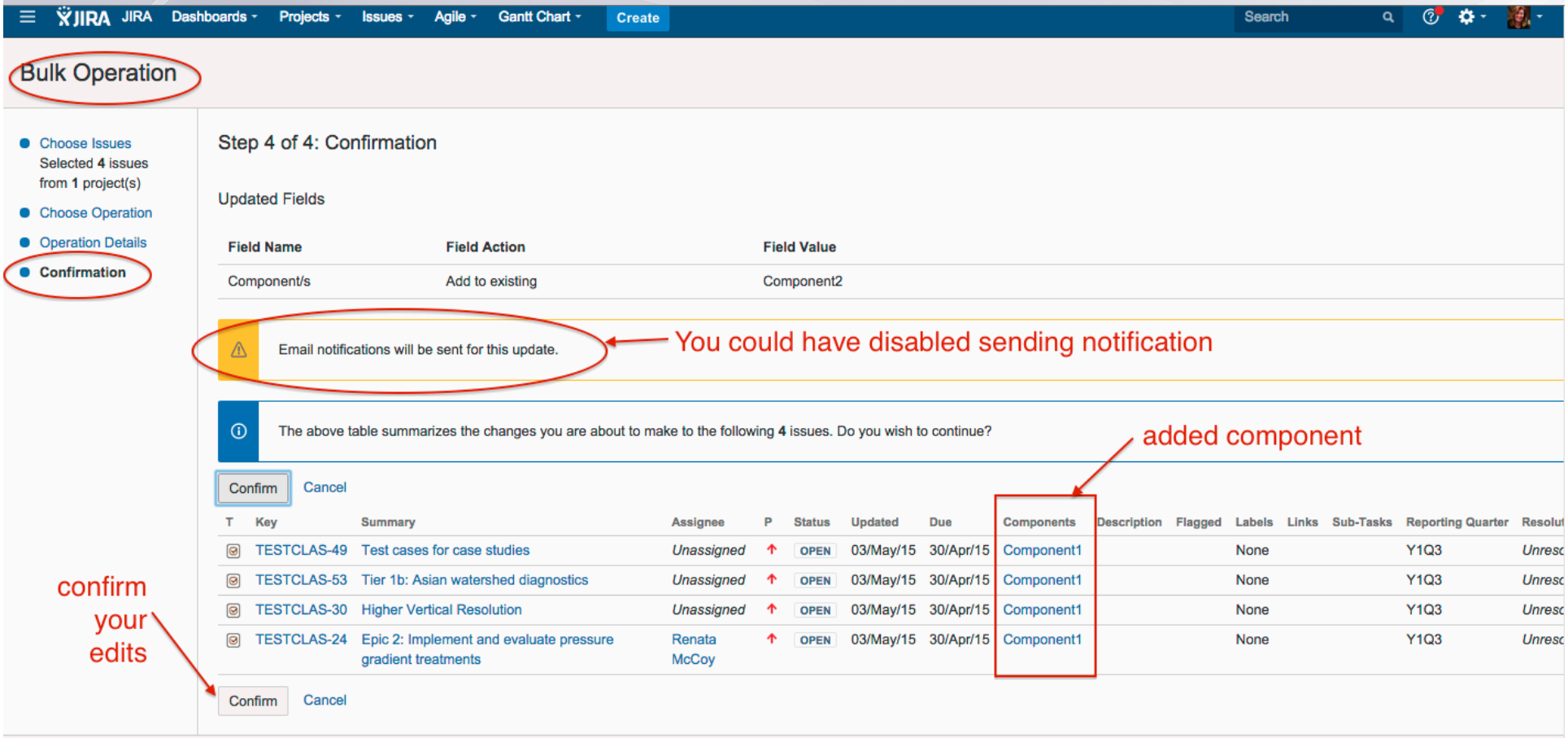
JIRA Agile – Changing metadata Bulk Editing #4



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