




Introduction to Agile Planning with IBM Rational Team Concert

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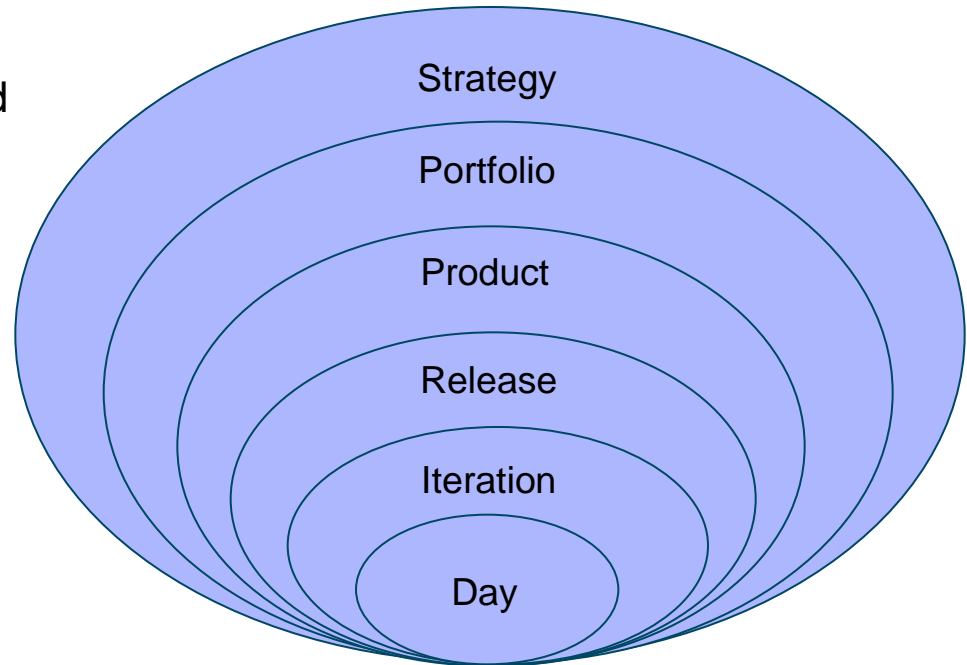
Agile: The Manifesto

Individuals and interactions over processes and tools
Working software over comprehensive documentation
Customer collaboration over contract negotiation
Responding to change over following a plan

(see <http://agilemanifesto.org/>)

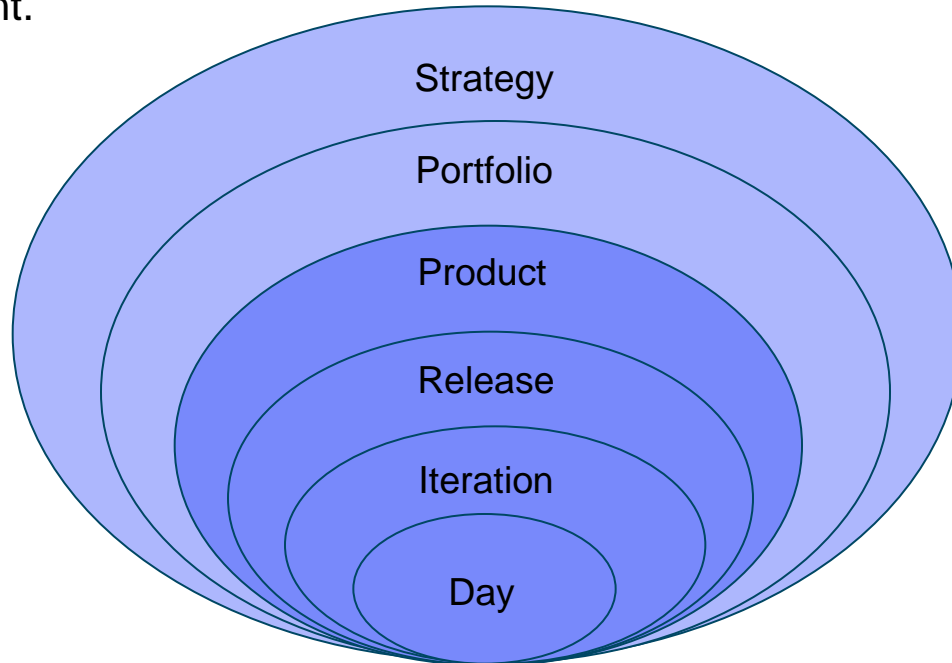
Planning Onion

- **Strategy** – defines the vision associated with a business need or direction.
- **Portfolio** – defines the overall product offering that consists of applications and tools and how they integrate.
- **Product** – defines a product vision and outlines the road-map for the product.
- **Release** – represents a prioritized backlog of product features that are committed to be delivered in a given time period.
- **Iteration** – defines short, fixed-length subsets of releases, typically 1-4 week time frame.
- **Day** – represents the actions taken in a day to achieve the iteration goals.



Planning Onion Layers: Development Project

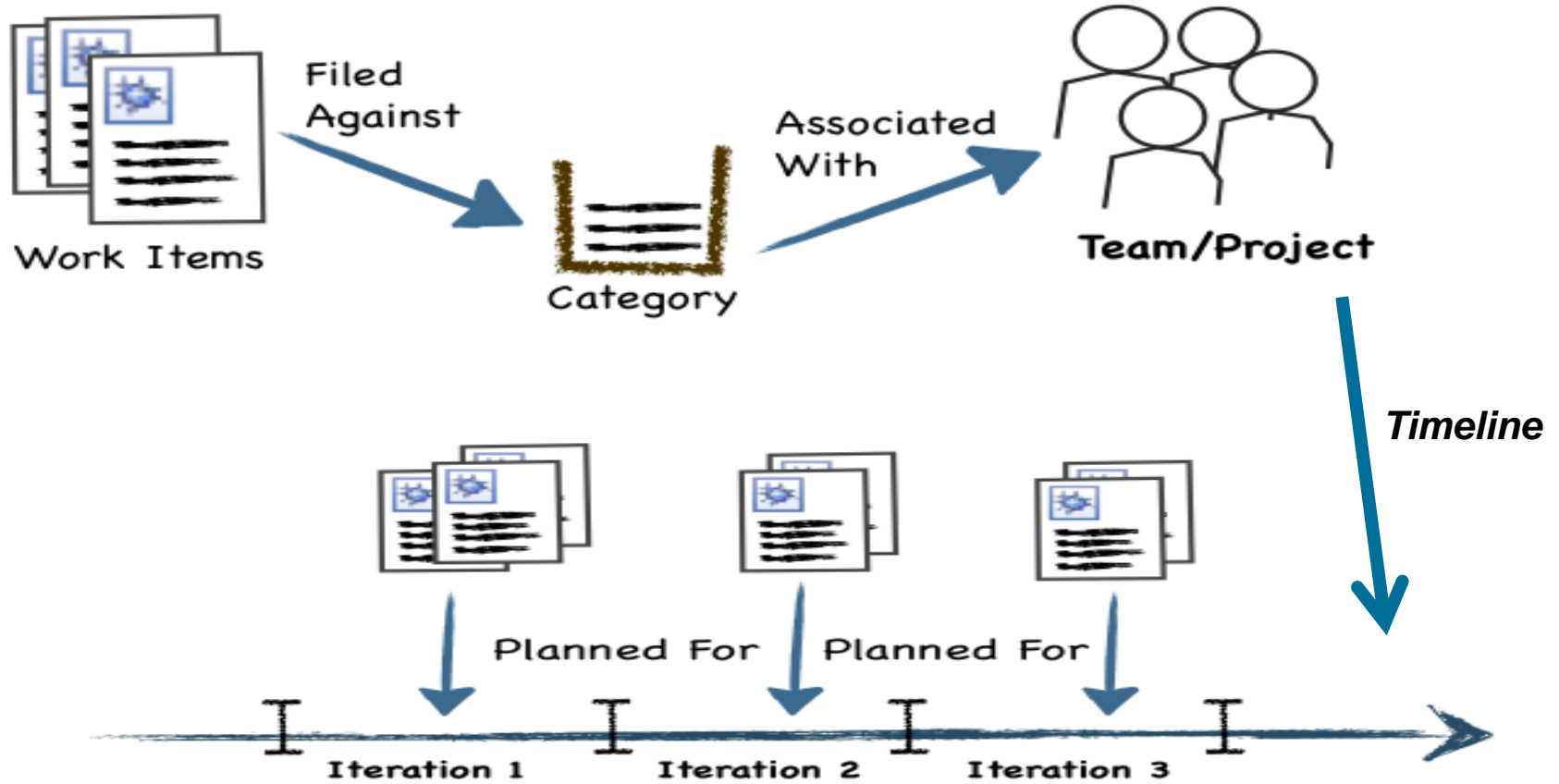
In a Development Project the four innermost levels of the planning onion are the most important.



Scrum:

- used for product development, especially software development.
- progress is through a series of iterations called sprints.
- each sprint is typically 1-4 weeks long.

Rational Team Concert (RTC) Plan Related Artifacts



Rational Team Concert (RTC) Plan Definition

- Unified view of Information
 - What - Work Items
 - Who – Project Area / Team Area
 - When – Iteration
- Plans are owned by a team or project and are associated with an iteration
- Plan content is derived from All work items which have a Filed Against value set to a category owned by the Plan’s team or project and are planned for plan’s iteration.
- Plans have a plan type, which defines the layer in the planning “onion”.

Sprint Backlog

6 Items: 3 open, 3 closed | Ends In: 24 days

Plan Details [Edit](#)

Owner: JUnit Project

Iteration: 4.4 s3 [5/21/12 - 6/15/12]

Plan Type: Sprint Backlog

Include All Items

Burndown:

Progress: 3/6 pts Estimated: 100%

Progress Load:

Progress: 24/56 | +19 h Estimated: 100%

Planned Items [Links](#) [Snapshots](#) [Dashboard](#) [Notes](#)

View As: Work Breakdown [Type to Filter](#) [Add Work Item](#)

Summary	Story Points
As a user I want my phone to call someone randomly	3 pts
Implement a user interface that presents the chosen one	--
Implement a function that selects someone from my contact list	--
As a user I want to be able to skip a randomly propose contact	5 pts
Design an icon for the user interface	--
Implement user interface to skip a proposal	--

Rational Team Concert (RTC) Planning Support

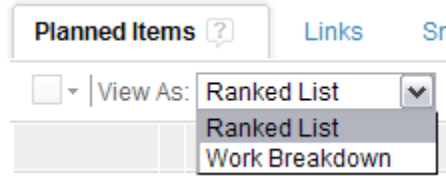
- Process neutral
 - Out of box templates (works with Scrum, OpenUp, Formal Project Management)
 - Customized templates
- No separation between planning/implementing of features and bug fixing
 - Both planning and defect management share a common data model
 - They are supported in the same tool and are highly integrated
 - Plans are in fact a query for work items
- Supports:
 - Top down planning (project manager, product owner, team leads, ...) **AND**
 - Bottom Up (team members) **AND**
 - Plan consolidation (Sprint planning meetings, stand-ups, ...)

Planning Onion Layer: Product Backlog

- Prioritized feature list

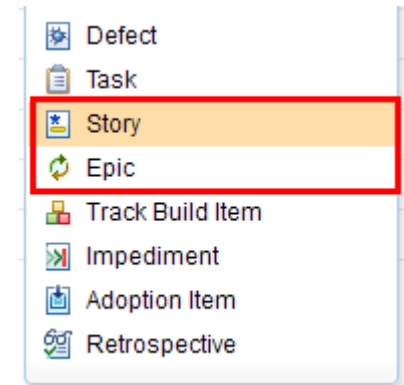
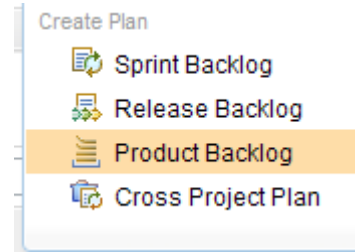
- Plan **Views**

- Ranked List
- Work Breakdown



- **WorkItem Types**

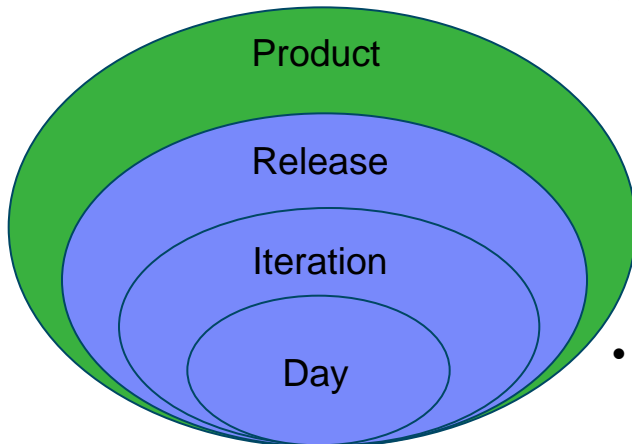
- Plan items: Work items that are relevant for planning. Ex: Epics, Stories, etc.



- **Reports**

- How your product backlog is evolving?
- How many items are there on the product backlog?
- Can we find out how long it would take to complete the product backlog?

- **Top down Planning**



Managing a Product Backlog

- High-level plan that contains stories not planned for any release or iteration yet
- Targeted for the iteration marked as **Backlog Iteration**
- **Prioritized** feature list based on risk, business value, etc.

Story 96964 ?

Summary: * As a user I want to move children of top level work item types too

Overview Done Criteria Links Approvals History

Criteria of Acceptance

Acceptance Criteria:

This story is tested iff

- the user can assign both a plan item as well as its children to an iteration
- by using the work item drop down button (located to the left of each plan item) keeping the Alt key pressed (notice the UI change) and choosing an iteration from the Plan All For sub-menu.

Business Commitment

Business Value: Show Stopper

- Unassigned
- Not Required
- Nice to Have
- Tactical Need
- Priority
- Show Stopper

- Plan items – include only **non execution** items such as Epics and Stories
 - **Customize** with themes, business value, etc
 - Define the **Done** Criteria

Managing a Product Backlog

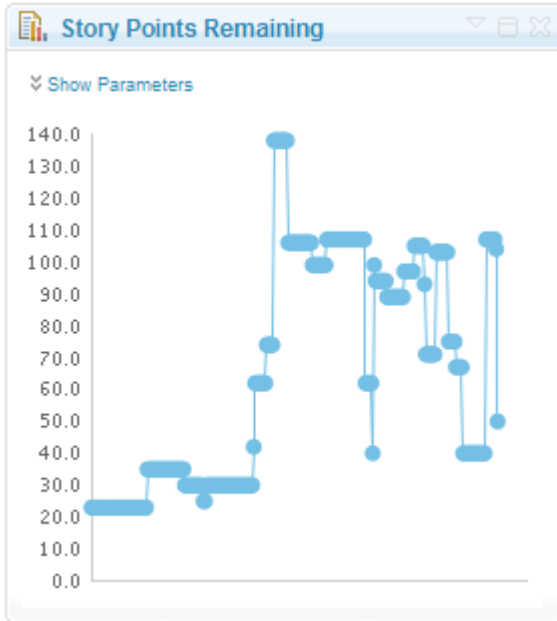
- **Sizing** in Story points - rough estimates based on complexity and development effort
- **Ranking** - ensure that the most valuable functionality is delivered first

The screenshot shows a 'Product Backlog' interface. At the top, it says '10 items: 10 open, 0 closed | Ends in: --'. Below this is a 'Plan Details' section with an 'Edit' button. The main area is titled 'Planned Items' and includes tabs for 'Links', 'Snapshots', 'Dashboard', and 'Notes'. There is a 'View As' dropdown set to 'Ranked List' and a search box labeled 'Type to Filter'. An 'Add Work Item' button is also visible. The main content is a table with the following data:

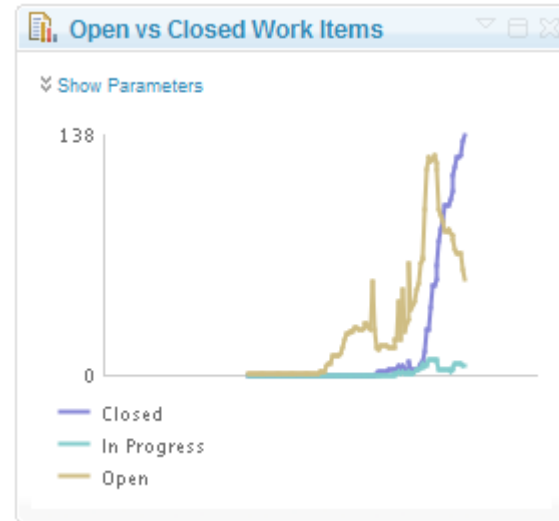
Actions	Summary	Story Points	Priority	Rank
	Provide JUnit integration for IDEA development tools	8 pts	High	1
	Provide JUnit integration for IDEA development tools	2 pts	High	2
	Runtime grows quadratically with number of test methods	--	High	3
	Provide annotations to mark test classes	3 pts	Medium	4
<input checked="" type="checkbox"/>	Support multiple JUnit runs in Eclipse integration	13 pts	Medium	5
	assertEquals(0, 0) doesn't document behavior for Double	--	Low	6

Managing a Product Backlog ...

- Progress on Product Backlog
 - **Story Points Remaining**



- **Open Vs Closed Work items**

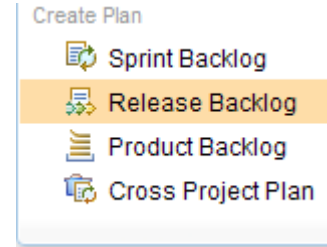
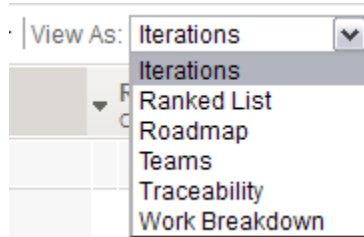


Planning Onion Layer: Release Backlog

- Planned/Committed features for the release of the product

• Plan Views

- Iterations
- Ranked List
- Roadmap
- Teams
- Traceability (optional)
- Work Breakdown

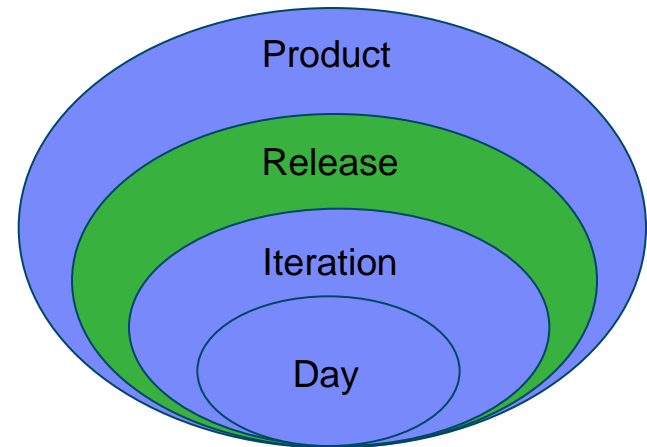


• WorkItem Types

- Plan items: Work items that are relevant for the planning. Ex: Themes, Epics and Stories

• Reports

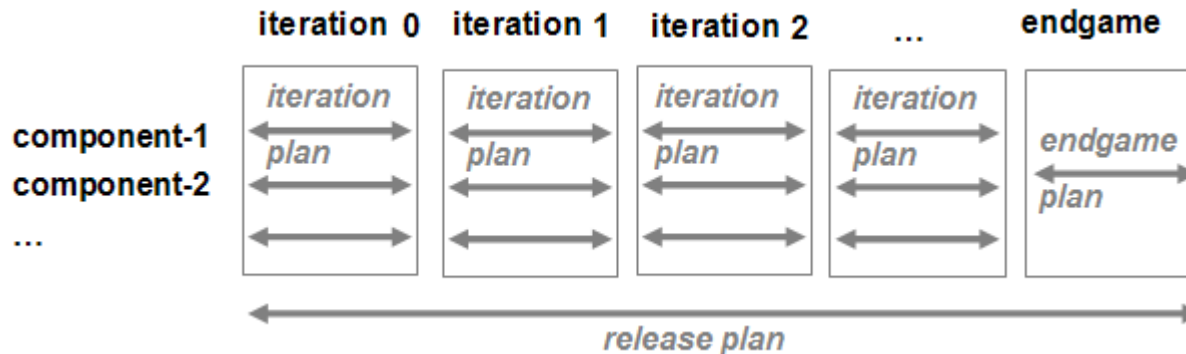
- Team Velocity
 - All the story points that were 'achieved' grouped by the iteration they were targeted for.
- Release Burndown
 - Amount of outstanding work for the release, broken down by iteration.



• Top down Planning

Managing a Release Backlog

- **Connects** the business value and the execution items.
- **Iterations** view: holistic view of which stories are planned for which iteration.
- **Drag and drop**: assign the stories from a backlog to specific iterations.
- **Progress** bars: avoid overloading an iteration considering the team's velocity and to track overall progress.
- **Load** bars avoid overloading an iteration.
- Coarse grained: Estimation in **size**; estimated in relative values such as **Story Points**, lines of code, function points, etc.



Managing a Release Backlog ...

- Tracking multiple sprints

Planned Items ? Links Snapshots Dashboard Notes

View As: **Iterations** (28 items filtered) [+ Add Work Item](#)

4.4 [4/11/12 - 8/9/12] Closed Items: 21 Open Items: 18			Progress: 23/51 pts	Estimated: 100%
Summary		Story Poin	Effecti	Progres: Rank
▶ Provide improved Assertion syntax		20 pts	--	0/20pts 1 11
4.4 s1 [4/11/12 - 5/11/12] Closed Items: 8 Open Items: 0			Progress: 20/20 pts	Estimated: --
▼ 4.4 s2 [5/11/12 - 8/10/12] Closed Items: 10 Open Items: 12			Progress: 0/8 pts	Estimated: 100%
Summary		Story Poin	Effecti	Progres: Rank
▶ assertEquals throws NPE while comparing null elements		--	3 wee	0/120hrs 3
▶ assertEquals misses differences		--	2 hour	0/2hrs 6
▶ testCount hard-coded to 1 for childless Description		--	--	-- 10

Managing Release Backlog ...

- Overview for multiple teams

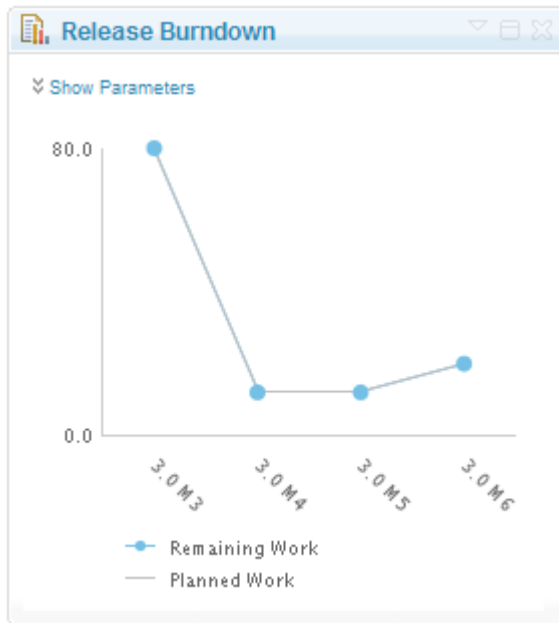
Planned Items ? Links Snapshots Dashboard Notes

View As: Teams ▼ | Type to Filter (13 items filtered) Add Work Item ▼

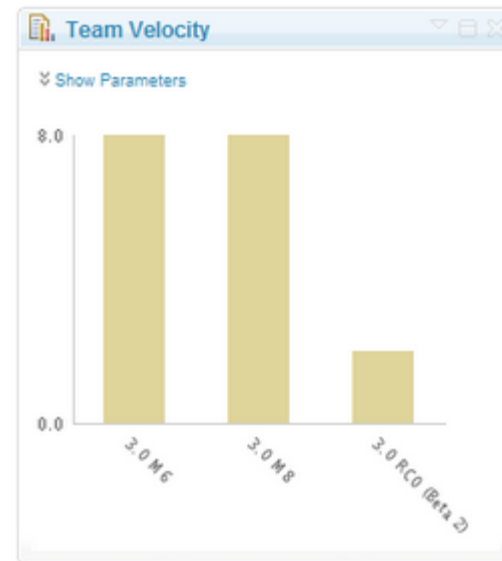
JKE Banking (Change Management)		Progress: 42/78 pts	Estimated: 82%
Closed Items: 11 Open Items: 34			
Summary		Effectiv	Progress
	Calculation error	2 hours	0/2hrs
	Performance on first startup is bad	6 hours	0/6hrs
	Incorrect organization is selected	4 hours	0/4hrs
	Credit Increase request is registered against the wrong account	1.5 day	0/12hrs
	Failing Test Case "Allocate Dividends to a Single Cause" when executing Test Execution Record "Allocate_...	--	--
	Logout is not working anymore	5 hours	0/5hrs
	Running out of SWT handles	4 hours	0/4hrs
	Failing Test Case "Pay Bills Online"	1.5 day	0/12hrs
	Browser Exception	1 hour	0/1hrs
	Parent to copy	--	--
Business Recovery Matters		Progress: 34/70 pts	Estimated: 78%
Closed Items: 9 Open Items: 23			
Energy Efficiency Matters		Progress: 8/8 pts	Estimated: --
Closed Items: 1 Open Items: 0			
Release Engineering		No Work	Estimated: --
Closed Items: 0 Open Items: 0		Progress: 0/0 pts	

Track progress

- Release Burndown: shows the amount of outstanding work for the release, broken down by iteration.



- Team velocity: measures a team rate of progress

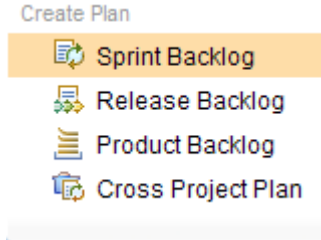
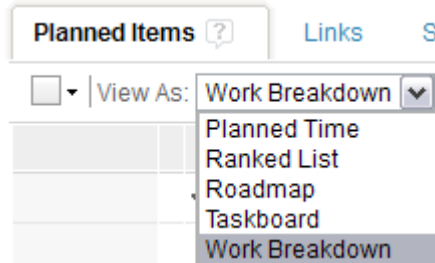


Planning Onion Layer: Sprint Backlog

- Tasks planned for the iteration

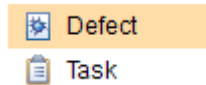
- **Plan Views**

- Planned Time
- RankedList
- Roadmap
- Taskboard / Kanban
- Workbreakdown



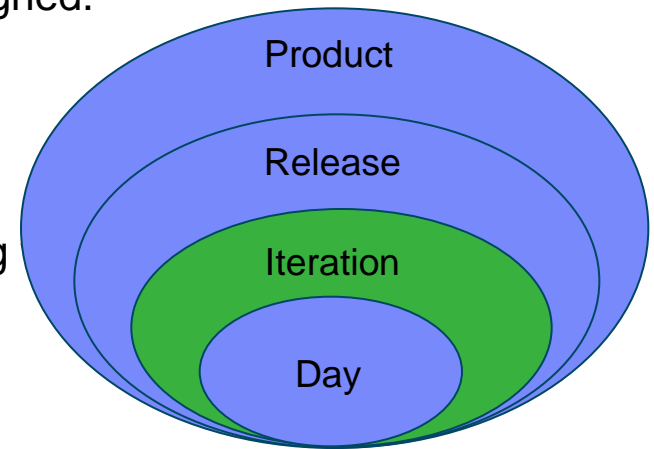
- **WorkItem Types**

- Execution items: Work items which have work assigned.
Ex: Task and Defect.



- **Reports**

- Sprint Burndown
Estimated hours required to complete remaining



Planning a Sprint

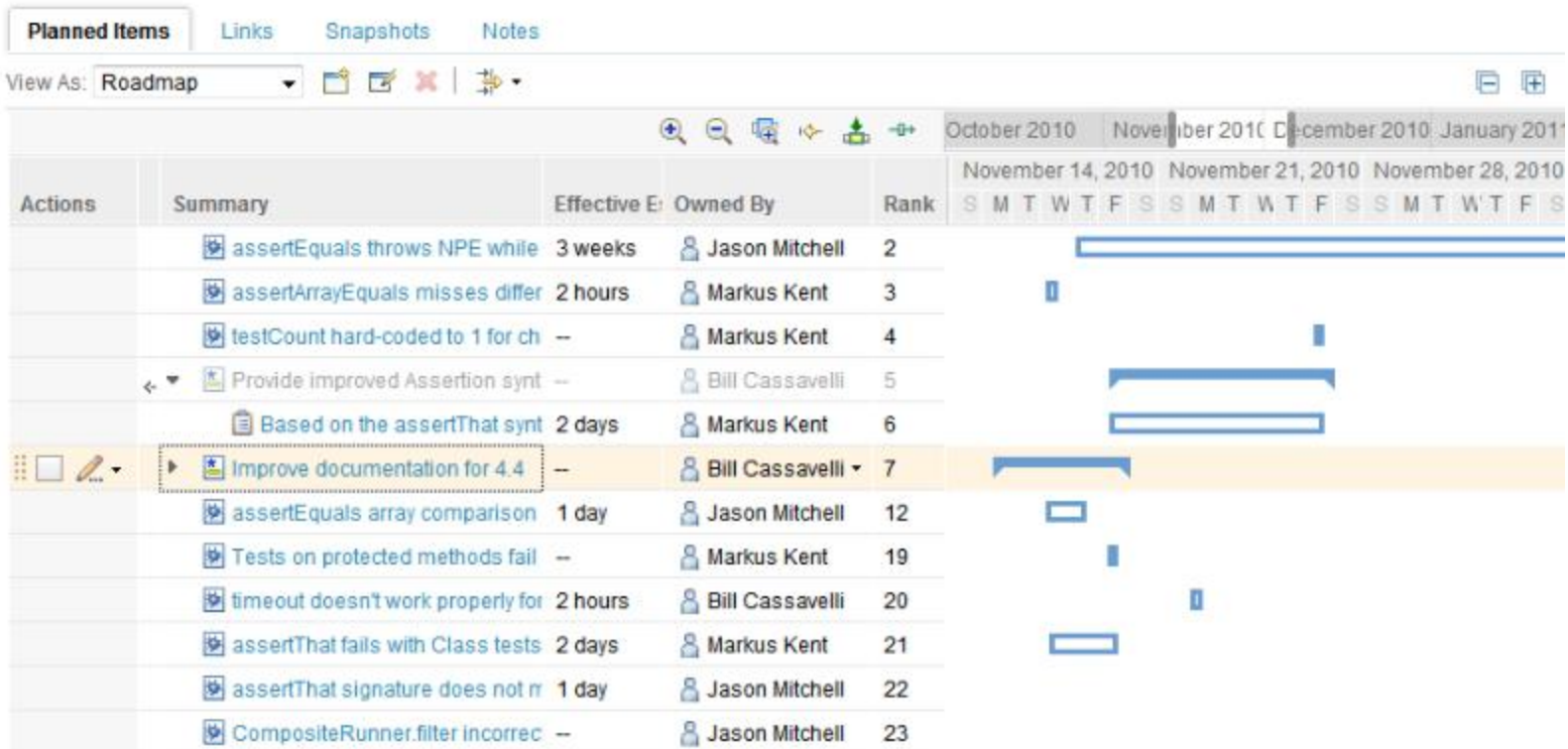
- Focus on **Execution**: large stories broken down into smaller sub-stories and execution items
- **Fine grained**: Estimation of effort: typically estimated in **Ideal Hours/Days**
- **Custom view**: Can the execution task relate to the **business value** expressed on the product backlog?

The screenshot shows a 'Planned Items' view in a project management tool. The interface includes tabs for 'Planned Items', 'Links', 'Snapshots', 'Dashboard', and 'Notes'. Below the tabs, there are options for 'View As: Work Breakdown', a search filter 'Type to Filter', and an 'Add Work Item' button. The main content is a table with the following data:

Summary	Effective Estimate	Business Value	Rank
As a user I want my phone to call someone randomly	--	Priority	1
Implement a function that selects someone from my contact list	2 days	--	2
Implement a user interface that presents the chosen one	1 day	--	3
As a user I want to be able to skip a randomly propose contact	--	Tactical Need	4
Implement user interface to skip a proposal	2 days	--	5
Design an icon for the user interface	2 days	--	6

Planning a Sprint ...

- **Roadmap view:** illustrates the schedule of the execution items (e.g. defects and tasks) and the rolled-up schedule of the plan items (e.g. stories and epics).



Planning a Sprint ...

• Taskboard view:

- shows plan items in the left column and execution items in the state group columns.
- visualize the progress of the stories and their children.
- ability to adjust the state quickly with drag and drop from this view.
- color tags can be used to show the state of the plan items.

The screenshot shows a taskboard interface with the following components:

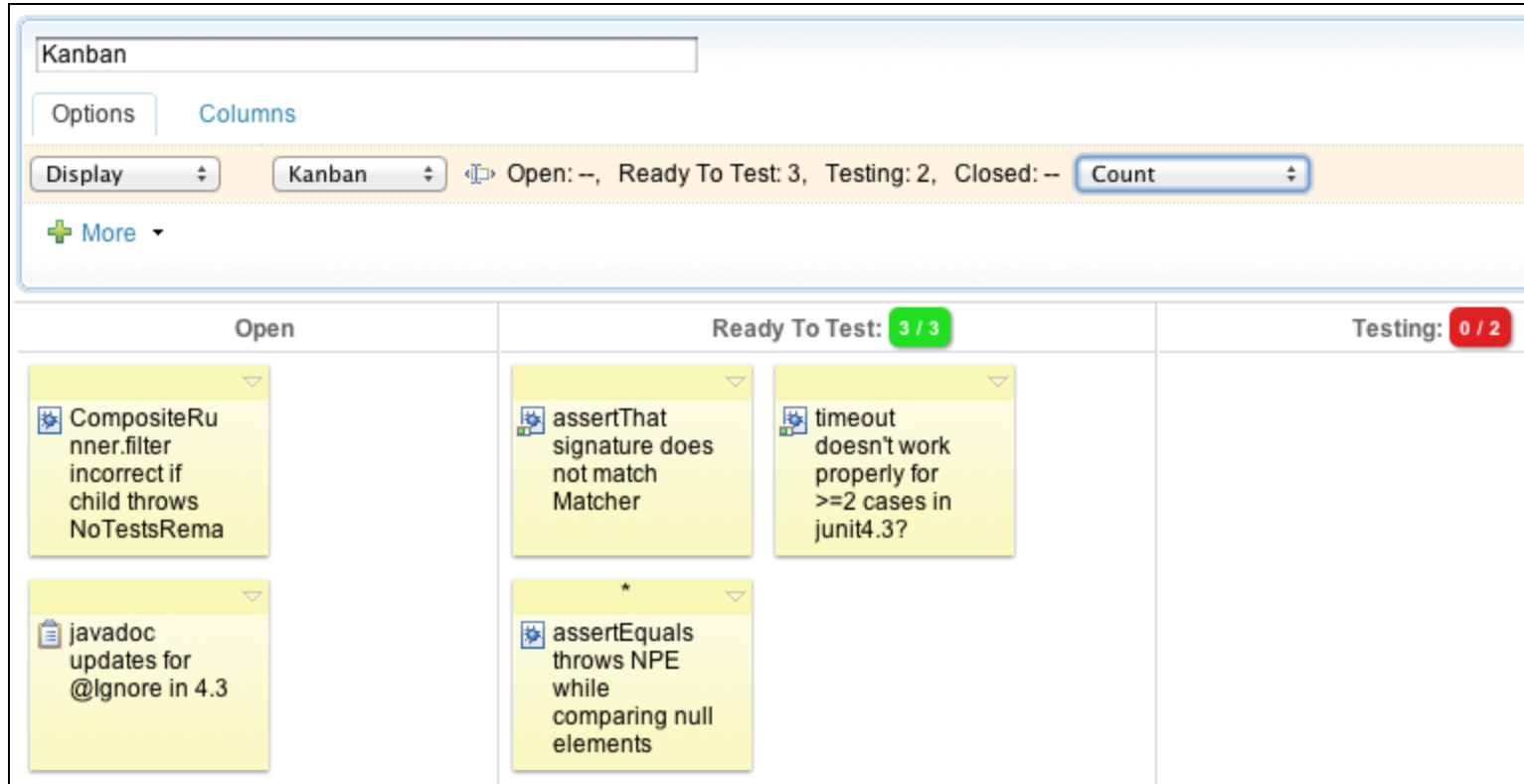
- Navigation:** "Planned Items" (selected), "Links", "Snapshots", "Dashboard", "Notes".
- View As:** "Taskboard" (selected).
- Filter:** "Type to Filter" (input field).
- Buttons:** "Add Work Item" (+).
- Columns (States):**
 - Story:** Contains three story cards: "Donor Dividend Allocation" (green), "Frequency of dividend transfer" (yellow), and "Requests sent in form of email" (yellow).
 - Open:** Contains two implementation cards: "Implement - Donor Dividend" and "Implement - Frequency of dividend".
 - In Progress:** Contains two implementation cards: "Implement - Requests sent in form of" and "Implement - Organization must identify".
 - Resolved:** Contains two implementation cards: "Implement - Organizations may apply" and "Implement - Customers can Nominate".
- Filter Controls (Bottom):**
 - Two "Colors" dropdown menus.
 - Two "Stories" dropdown menus.
 - Two filter input fields: "type:Story state:'In Progress'" and "type:Story state:'New'".

Red arrows indicate that the "Donor Dividend Allocation" story card is linked to the "In Progress" filter, and the "Frequency of dividend transfer" story card is linked to the "New" filter.

Planning a Sprint ...



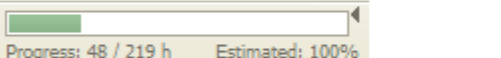
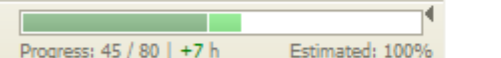
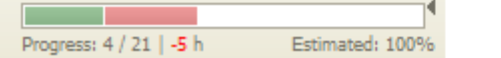
- **Kanban**

- Define limits (counts or complexity or estimates).
- Deviations from the ideal are shown as a small box in the column header. The further you are from your ideal, the more red the box gets.
- Shows where capacity is available as well as when capacity limits might be exceeded



Planning a Sprint ...

- **Load Bars** : capacity planning
 - *Do I have enough time to finish all my work in this iteration?*
- **Progress Bars** : track progress
 - *Considering all my work for this iteration. Where am I now?*

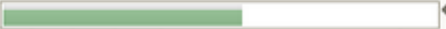

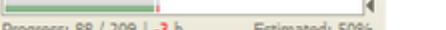
<p>Load Bars</p> 	<p><i>A load showing that 18 of 104 working hours are booked. The label and the white part of the bar indicate that there are 86 work hours which are not assigned yet to any work item.</i></p>
	<p><i>The work exceeds the remaining work time: 137 hours of work compared to 104 hours work time. The user is overbooked by 33 hours, as shown by the label and by the partially red bar.</i></p>
<p>Progress Bars</p>	
	<p><i>A progress bar showing that 48 out of 219 hours of work is completed. No projection is shown.</i></p>
	<p><i>Progress bar with projection. It shows that 45 out of 80 hours of work are completed and that you completed more work than expected, considering the current iteration. The bright green part of the bar shows that you are ahead of your target.</i></p>
	<p><i>Being behind by 5 hours. The bar shows that 4 out of 21 work hours are completed. The completion of 9 work hours is expected and therefore the bar is painted partially red.</i></p>

Aids in assessment of the health of the Plan

Planning a Sprint ...

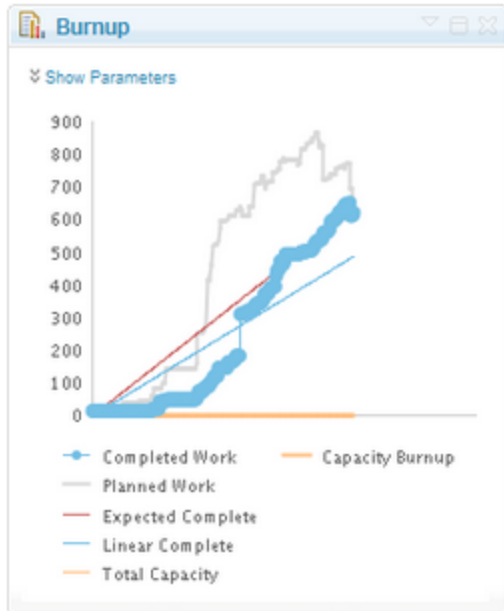
Quality of Planning:

- The more work items you estimate the more precise the work can be computed.
- The quality is excellent if all work items are estimated, it is good if the majority is estimated, ...
- Visually, the percentage of estimated work items is represented as a fill-level.
- The height of load and progress bars shows how many work items have an estimate.
- If no work item is estimated, the bar is not visible, if all work items are estimated, the bar is fully visible.

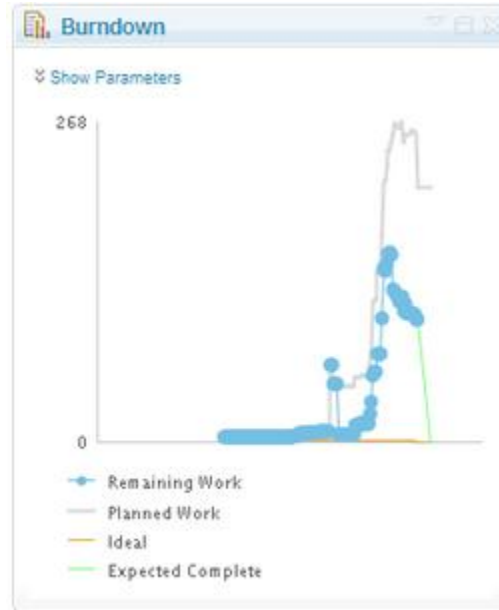
 <p>Load: 58 / 104 +47 h Estimated: 83%</p>	<p><i>A good percentage of work items is estimated. The bar is filled up almost to the top; the label shows the exact number (83%).</i></p>
 <p>Load: 80 / 104 +24 h Estimated: 20%</p>	<p><i>20% of the work items are estimated. This makes the statement of the bar likely to be wrong and, hence, it is filled up a little only. It is very likely that when the remaining 80% of the work items are estimated that the user will be overbooked.</i></p>
 <p>Progress: 88 / 209 -3 h Estimated: 50%</p>	<p><i>A progress bar where 50% work items are estimated. Again, the bar is not filled up to the top.</i></p>

Track progress

- Burnup: shows the number of hours of completed work over daily intervals.

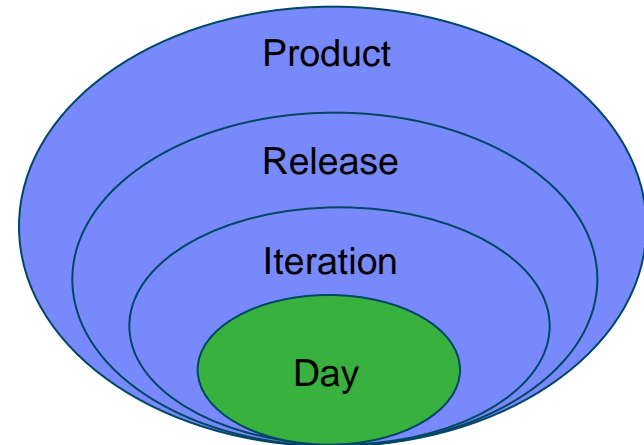


- Burndown: shows the trend of planned, completed & remaining work over a specific time period



Planning Onion Layer in Rational Team Concert: Day

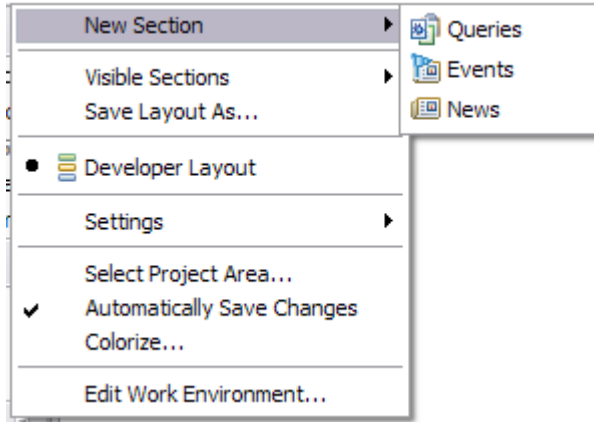
- **My Work View:** Developers plan their assigned work and adjust estimates
 - Managing new work
 - Managing current work
 - Managing future work
 - Work Load
 - Find, filter, and colorize planned work items



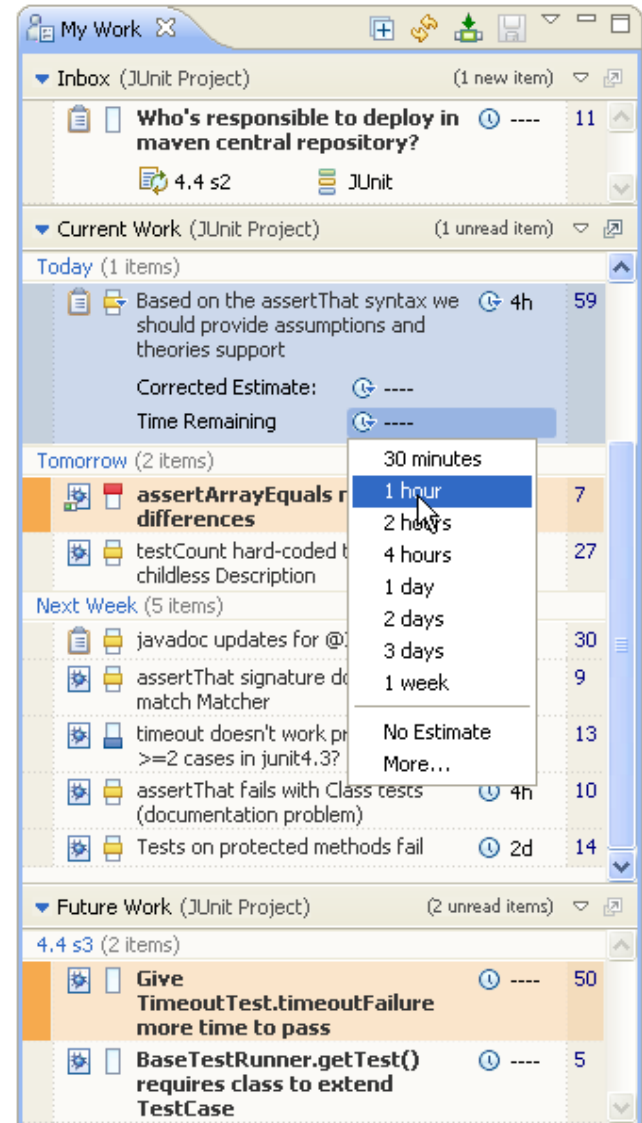
- Daily **Stand ups:** Developer **Taskboard** view to see what people are working on.
- **Planned Time:** Developers sort the work items in the order in which they intends to work on them
- **Bottom Up** Planning

How does an individual developer work during a sprint?

- My work view: in place estimation, feeds, ...

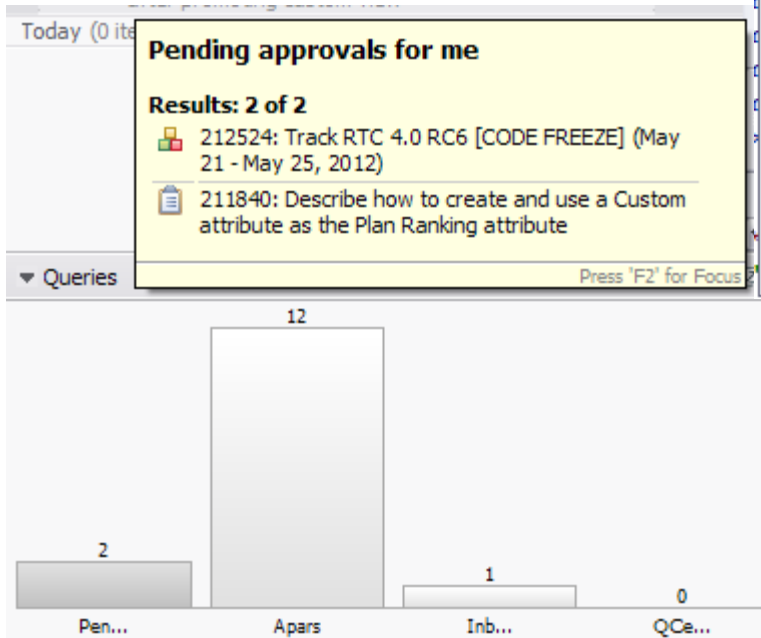


- Planned time view: Developers sort the work items in the order in which they intend to work on them in my work view.
- Warnings/errors are shown if the work is lagging behind the schedule
- My work view approximation in the web: Customized Planned Time View show a specific owner.



How does an individual developer work during a sprint? ...

- One place to view queries that impact my work



Configure Query Section

Select Queries

Select queries for the section.
 Note that the Group By functionality is not available for full-text queries.

- Pending approvals for me
- Apars
- Inbox - Defects and Enhancements
- QCert RTC v4.0 ALL MUSTFIX (SEV1 SEV2) Unresolved Defects

Buttons: Add Query..., Remove, Up, Down

Navigation: ? Back Next > Finish Cancel

How stable is my release/sprint?

- Capture the state of a plan

Plan Details

Planned Items Links **Snapshots** Resources Dashboard Notes

To perform a comparison, select two items from the list. Only saved snapshots can be compared. [Create Snapshot](#)

	Name	Type	Modified Date	Created By	Comments	Actions
	Current Plan	--	--	--	This is the current plan.	
<input checked="" type="checkbox"/>	Committed Plan	Planned	May 19, 2012	Project Manager	This is the snapshot of the	
<input checked="" type="checkbox"/>	Initial Plan	Regular	May 19, 2012	Project Manager	This snapshot represents tr	

- Compare the plan state

Planned Items Links **Snapshots** Resources Dashboard Notes

[Back to Snapshots](#)

	Comparison - May 19, 2012 10:35:54 PM	Committed Plan - May 19, 2012 7:29:38 PM	Initial Plan - May 19, 2012 6:43:47 PM
Overview			
Iteration Start Date	2 days	May 21, 2012	May 19, 2012
Iteration End Date	0	Jun 18, 2012	Jun 18, 2012
Scheduled Start Date	0	May 21, 2012	May 21, 2012
Scheduled End Date	2 weeks 5 days	Jun 18, 2012	May 30, 2012
Work Items Total	0	5	5
New	0	5	5
In Progress	0	0	0
Closed	0	0	0
Not Accessible	--	--	--
Work Done	0	0	0
Work Left	0	4 weeks 4 days	4 weeks 4 days
Progress	--	0/192 h <input type="text"/>	100% 0/192 h <input type="text"/>
Work Items			
	Modified Items	Added Items	Removed Items
	Implement compare snapshot feature	--	--
	Create design document for Snapshot feature	--	--
	Implement snapshot client	--	--
	Implement Snapshot service	--	--

How stable is my release/sprint?

- Planned Time Variance: indicates the difference in days between the current start date and the Planned start date for a given work item.

Options
Column Display

Sorting ▾

Ranking ▾

Filter ▾

Resolved Items ▾

Colors ▾

Variance > 0.9d ▾

variance>0.9 ?

Summary	Planned Time Variance
Variance > 0.9d Create iteration plan	1
Variance > 0.9d Create design document for Snapshot feature	3
Variance > 0.9d Implement Snapshot service	3
Variance > 0.9d Implement compare snapshot feature	3
Variance > 0.9d Implement snapshot client	3

QUESTIONS

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