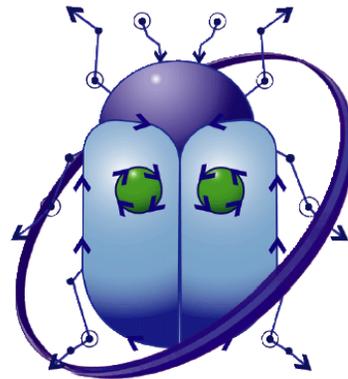




ECHO Test Track Pro 2010 User's Guide





Training Overview

- **Test Track Pro Overview**
- **Test Track Pro Workflow**
 - Trouble Ticket (TT) Workflow Description
 - Trouble Ticket (TT) Workflow Diagram
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- **Accessing Test Track Pro**
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 - Setting User Options
 - Main Defect Screen
- **ECHO Trouble Ticket → NCR Event Flow**
 - Entering a New Trouble Ticket
 - Tracking a Defect's Progress
 - Failing NCR Verification
 - Closing an NCR
- **Frequently Asked Questions**



Test Track Pro Overview

- The use of the TestTrack Pro (TTPro) COTS product is to provide a centralized bug tracking system.
- Projects' data, in TTPro, are collectively stored in a single database which allows portability from the TestTrack Pro server location to another PC. Each project is distinct, can be configurable separately by the owner, and is capable of having its own administrators.
- TTPro reports have a lifecycle of states through which they move (workflow milestones/events). A defect report's lifecycle starts with its submission and generally ends with its resolution.



Test Track Pro Definitions

- There are two types of reported items which are tracked within TTPro. They are:
 1. **Trouble Ticket (TT):** An issue or enhancement request that has been submitted by an ECHO partner. TTs are initially reviewed to determine whether they can be addressed immediately or require modifications to the ECHO software.
 2. **Non-Conformance Report (NCR):** An issue or enhancement request that has been submitted by an ECHO partner or ECHO team member and is now being tracked as an official change request against the ECHO system.
- There are several data elements captured within the TTPro System, but there are 6 core elements describing an NCR or TT. They are:
 1. **Defect Number:** Every NCR or TT is assigned a unique identifier which is used as the primary method for referencing items within TT Pro.
 2. **Summary:** This field contains a brief statement of the problem. It is recommended that it be brief, but concise.
 3. **State:** The state is a milestone achieved in the workflow, the lifecycle of the reported defect. States have several associated events that perform a specified action within the state.
 4. **Product:** The system interface to which the problem relates (e.g. REST API, PUMP, WIST, etc).
 5. **Severity:** The severity field is used to capture the impact (scaled 1 – 5) of the reported issue.
 6. **Category:** The category field is used to capture the priority (scaled 1 – 3) of the reported issue.



Issue Prioritization (Severity)

- As referenced on the previous slide, the **Severity** field is used to designate the impact of an NCR or TT should be resolved. A description of each potential values and the associated meaning are provided.
- Possible Values:
 - **Severity 1:** (The following problems are Severity 1's if no workaround exists or can be accommodated)
 - Inability to perform a mission-critical function (i.e., Ingest, Data Discovery, or Order Submission & Dispatching);
 - A mission-critical function performed improperly, resulting in permanent loss of data..
 - **Severity 2:**
 - The performance of a mission-critical function is degraded which is adversely impacting end user data access.
 - A mission-critical function can be only partially performed, or performs improperly, resulting in temporary loss of data or incorrect data results;
 - A condition exists to produce a severely degraded mission-critical function, but a workaround will allow operations to continue temporarily without permanent loss of data or severely impaired performance.
 - **Severity 3**
 - A non-mission-critical function cannot be performed, or yields incorrect results;
 - Unexpected events occur which can be corrected using normal operational procedures with minimal impacts to performance.
 - A condition exists to produce a degraded mission-critical function, but a workaround will allow operations to continue indefinitely without severely impaired performance.
 - **Severity 4**
 - Minor functional errors, typographical errors, and documentation errors are noted.
 - There is a defect of minor significance such as errors in documentation or incorrectly aligned icons on a
 - **Severity 5**
 - A request for an enhancement to the system.



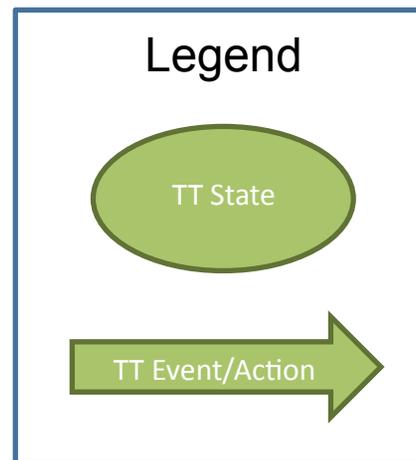
Issue Prioritization (Category)

- As referenced on the previous slide, the **Category** field is used to designate the priority of when an NCR or TT should be resolved. A description of each potential values and the associated meaning are provided.
- Possible Values:
 - **Category 0:**
 - This indicates the issue is critical enough that a fix must be pushed to the current operational build. The fix will be tested internally, tested on partner test, then applied to the operational build as quickly as possible. All Category 0 NCRs should also be a Severity 1.
 - **Category 1:**
 - This indicates the fix needs to be applied to the next build to go operational, either the build currently in Internal or Partner Test. Nearly all NCRs filed by internal test during their regression testing will qualify as Cat 1 since they must be fixed in the internal test build before the build can be released operationally.
 - **Category 2:**
 - This category indicates the issue/feature request should be considered for a development build. It does not guarantee which development build it will be included in, as Sprint scheduling may defer it, but that it is a candidate for Sprint consideration.
 - **Category 3:**
 - This category is reserved for “wish-list” or “bluesky” type features. Items in this category are ideas or issues we don’t want to lose, but would require some kind of significant change to make eligible for Sprint consideration. Examples of Cat 3 NCRs are suggestions for a next generation ECHO API or rewrite of a major component.



Trouble Ticket (TT) Workflow Description

The following workflow pages describe each state that an ECHO Trouble Ticket (TT) passes through, the activities that occur during that state, and the conditions upon which a TT is moved to a subsequent state. Note that the “Open” state is the initial state of an ECHO TT. A graphical representation is provided using the elements shown in the following legend.

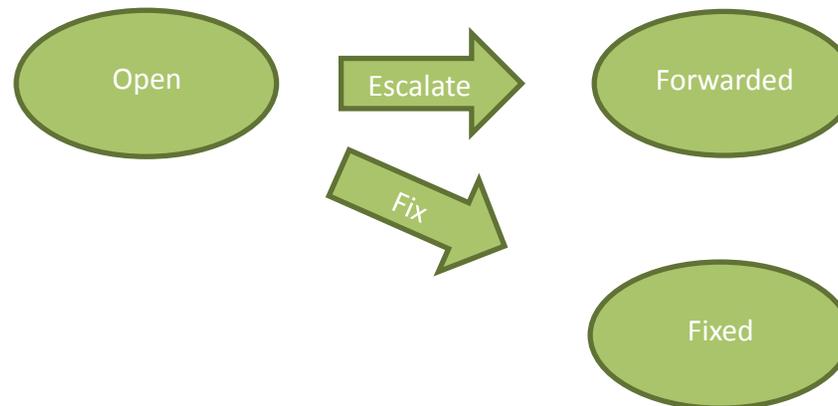




Trouble Ticket (TT) Workflow Description

- **TT (Open)**

- ECHO Operations reviews the details of submitted Trouble Tickets daily.
 - If the TT can be resolved immediately, the ECHO Operations team does so and uses the 'Fix' event to move the TT to the "Fixed" state.
 - If the TT cannot be resolved and is indicative of a bug or enhancement, the Operations team uses the 'Escalate' event to escalate the TT to an NCR and the TT moves to the "Forwarded" state.

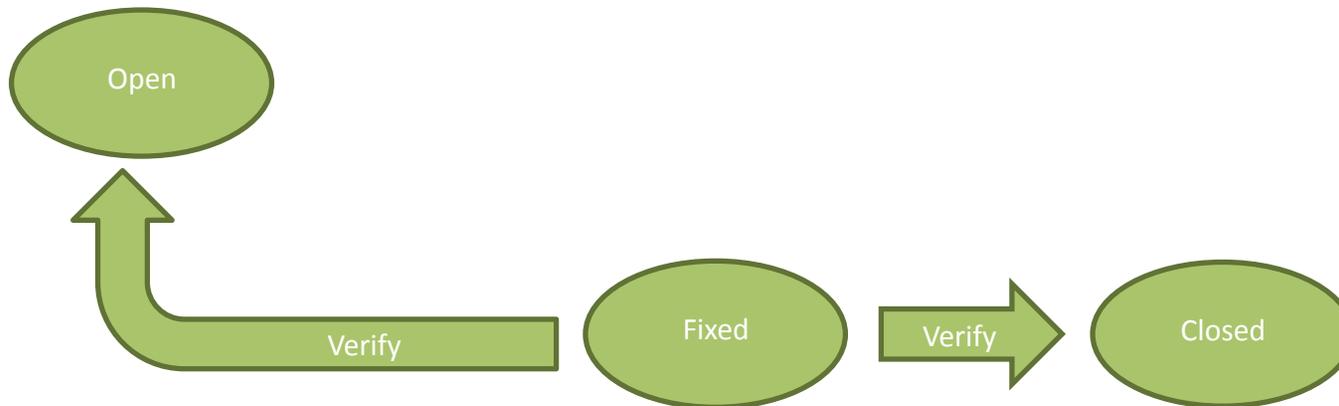




Trouble Ticket (TT) Workflow Description

- **TT (Fixed)**

- The submitter is encouraged to review the TT resolution.
 - If the resolution is not sufficient, the submitter uses the 'Verify' event to fail verification and the TT moves back to the "Open" state.
 - If the resolution is complete, the submitter uses the 'Verify' event to pass verification and the TT moves to the "Closed" state.

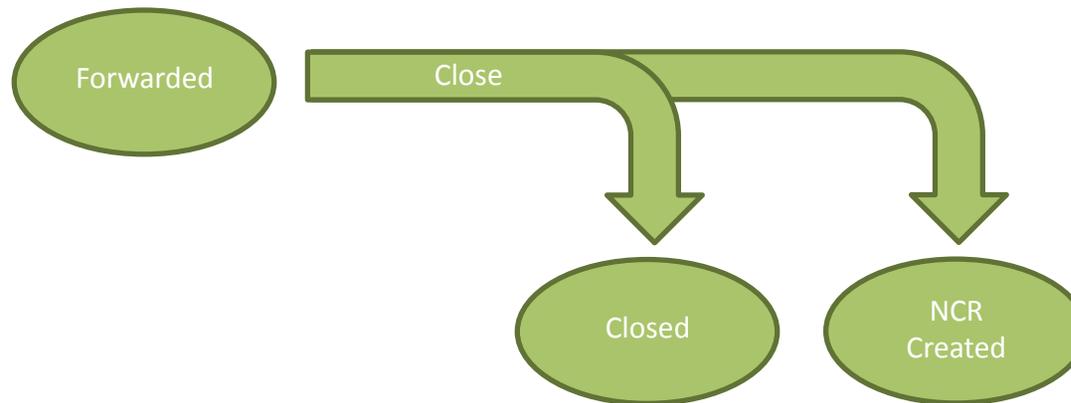




Trouble Ticket (TT) Workflow Description

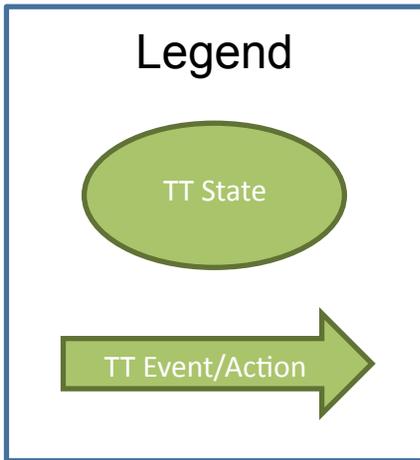
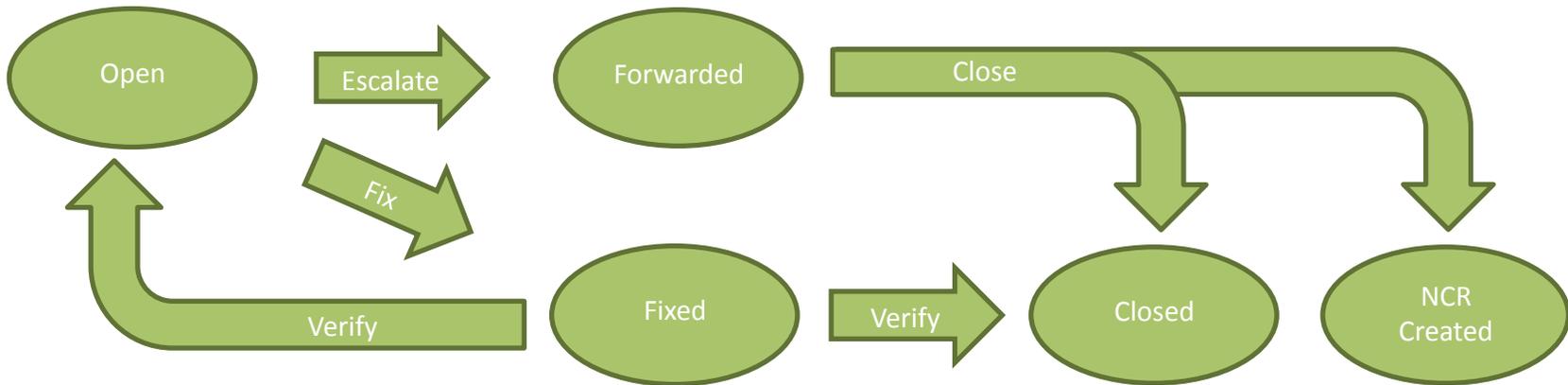
- **TT (Forwarded)**

- An automatic script will periodically (~20 min) escalate all TTs in the 'Forwarded' state from the ECHO_TTs project to the ECHO_Ops_NCRs project. The TT is then moves to the 'Closed' state.
 - The submitter is notified that the TT has been closed.
 - The submitter will be notified that an NCR has been created with the details of the TT.





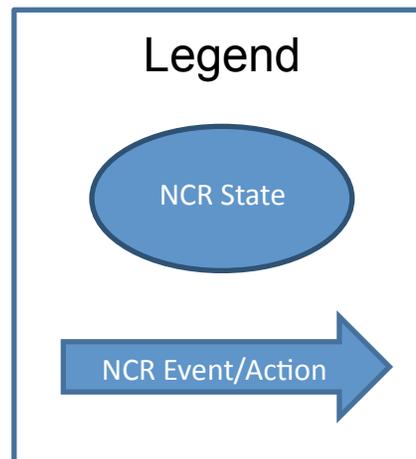
TT Workflow Diagram





NCR Workflow Description

The following workflow pages describe each state that an ECHO NCR will pass through, the activities that occur during that state, and the conditions upon which a NCR is moved to a subsequent state. Note that the “New Work Item” state is the initial state of an ECHO NCR. A graphical representation is provided using the elements shown in the following legend.





NCR Workflow Description

- **NCR (New Work Item)**
 - ECHO development, operations, and test team review new NCRs weekly with ESDIS to assign an NCRs severity and category and to discuss a potential resolution.
 - Issues requiring immediate attention are assigned to the current development sprint. All other items are moved to the “Open” state and left for subsequent prioritization.
 - There are no state changes when an NCR is assigned to a development sprint. However it will be included in a TT Pro folder and referenced on the ECHO website release planning page.

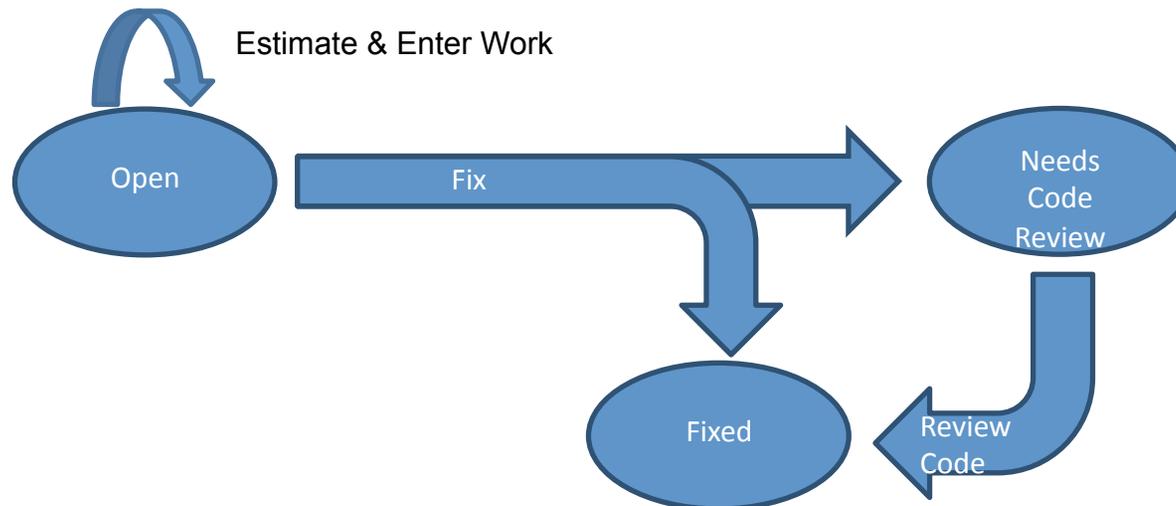




NCR Workflow Description

- **NCR (Open)**

- NCRs are assigned to a development sprint during a monthly sprint planning session. An estimated number of hours to implement the appropriate fix or enhancement is created during this process.
- While under development, the ECHO development team estimates enters their time spent addressing the NCR, and moves the NCR to the “Fixed” state when all work has completed.
 - The “Version” field on the “Fix” event specifies the release in which the NCR changes will appear for use.
- The ECHO development team may first move an NCR to the “Needs Code Review” state. This indicates that the functionality has been implemented, but is subject to review and rework if deemed necessary after internal code reviews. An NCR will be moved to “Fixed” state if the code review does not identify further actions, otherwise it will be moved back to the “Open” state and then re-fixed.

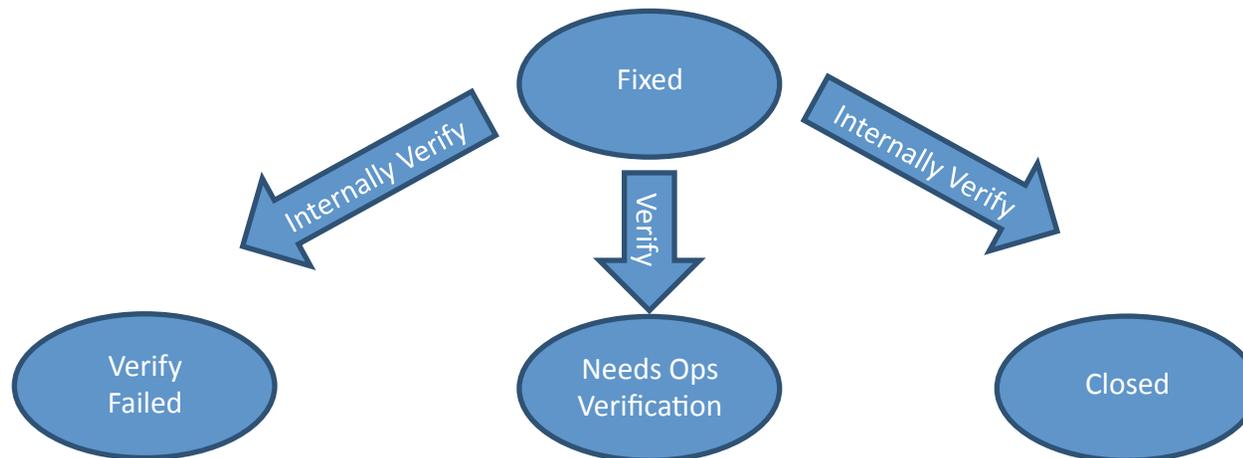




NCR Workflow Description

- **NCR (Fixed)**

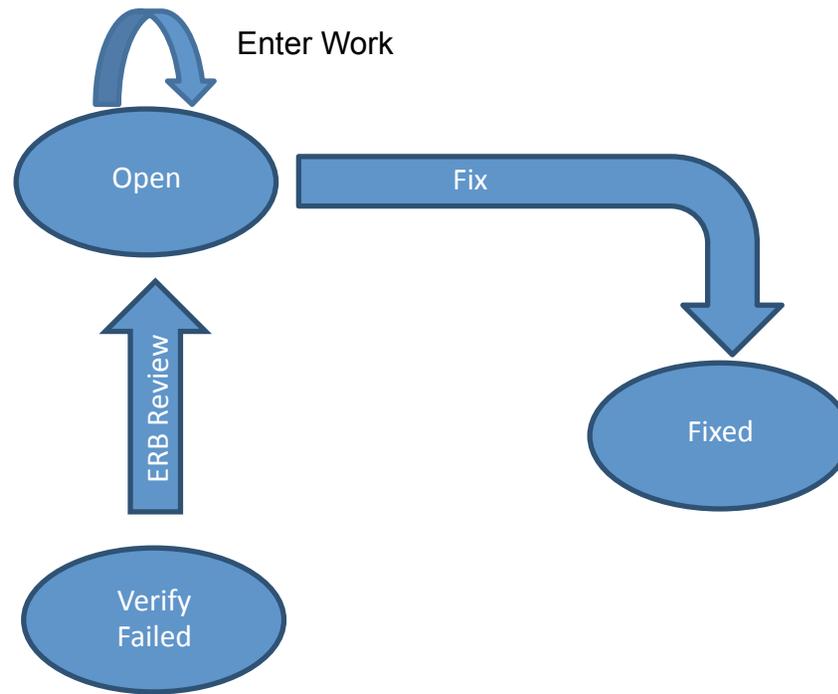
- When the ECHO release is deployed to the Internal Test team, they perform the necessary regression and verification tests to determine whether the NCR has been properly implemented.
 - If the NCR fails verification, the NCR is moved to the “Verify Failed” state.
 - If the NCR passes verification, was not an operational issue, and was not submitted externally, the NCR is moved to the “Closed” state.
 - If the NCR passes verification, and was submitted externally or is an operational issue, the NCR is moved to the “Needs Operations Verification” state.





NCR Workflow Description

- **NCR (Verify Failed)**
 - ECHO development, operations, and test team review verify failed NCRs weekly with ESDIS to determine the resolution to the failed verification. Reviewed NCRs are moved to the “Open” state.
 - The ERB may decide to request that the NCR be “re-fixed” prior to release. In this case, the development team will again enter their work and then move the NCR to the “Fixed” state.

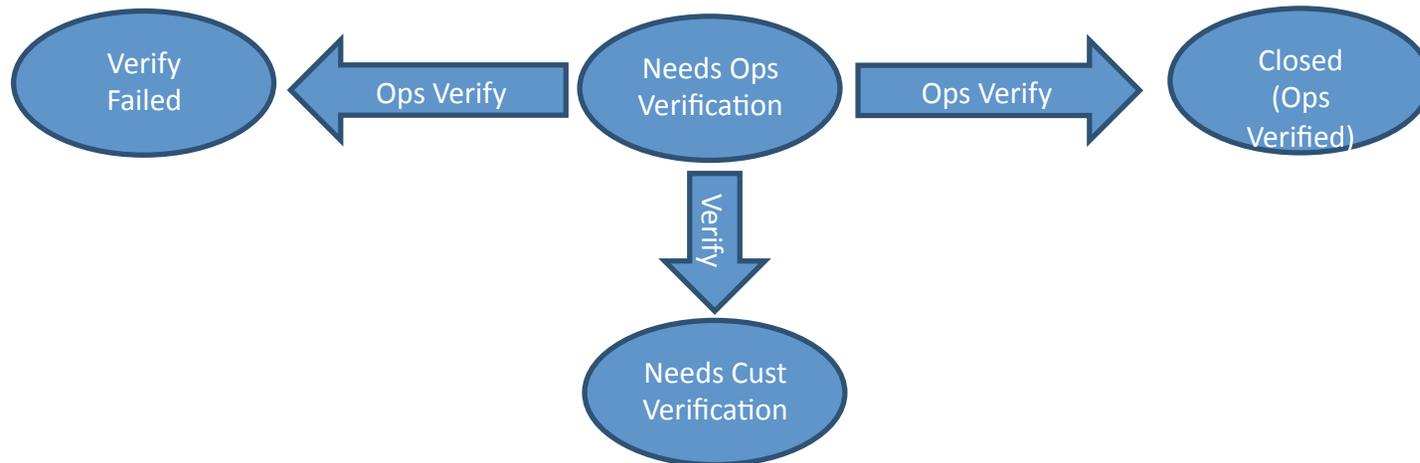




NCR Workflow Description (cont.)

- **NCR (Needs Operations Verification)**

- When the ECHO release is deployed to the Partner Test system, the ECHO Operations team will manually verify all NCRs in this state.
 - If the NCR fails verification, the NCR is moved to the “Verify Failed” state.
 - If the NCR passes verification and was internally submitted, the NCR is moved to the “Closed (Operations Verified)” state.
 - If the NCR passes verification and was externally submitted, the NCR is moved to the “Needs Customer Verification” state.
- It is possible that verification may occur when the release is Operational due to data requirements.

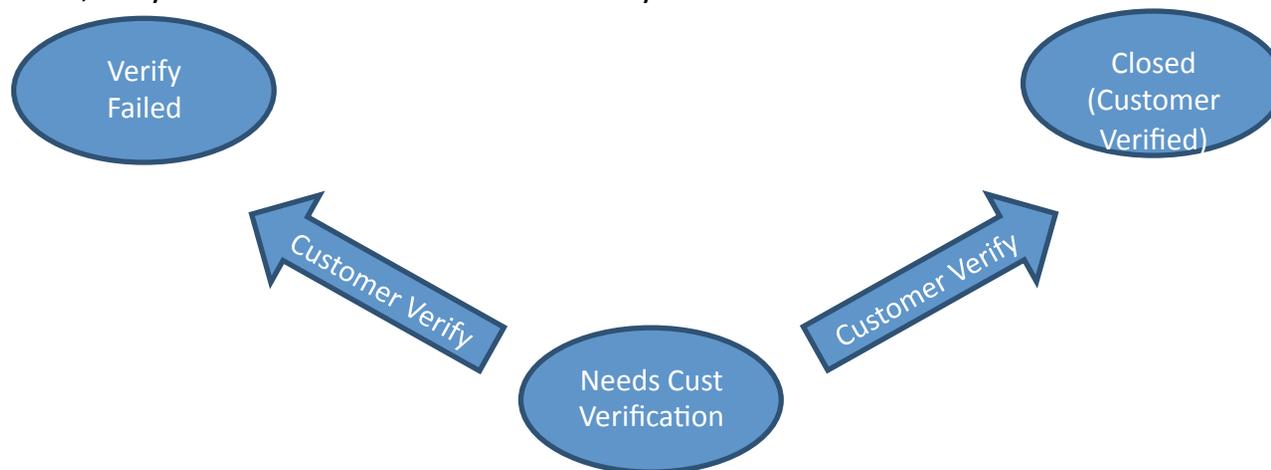




NCR Workflow Description (cont.)

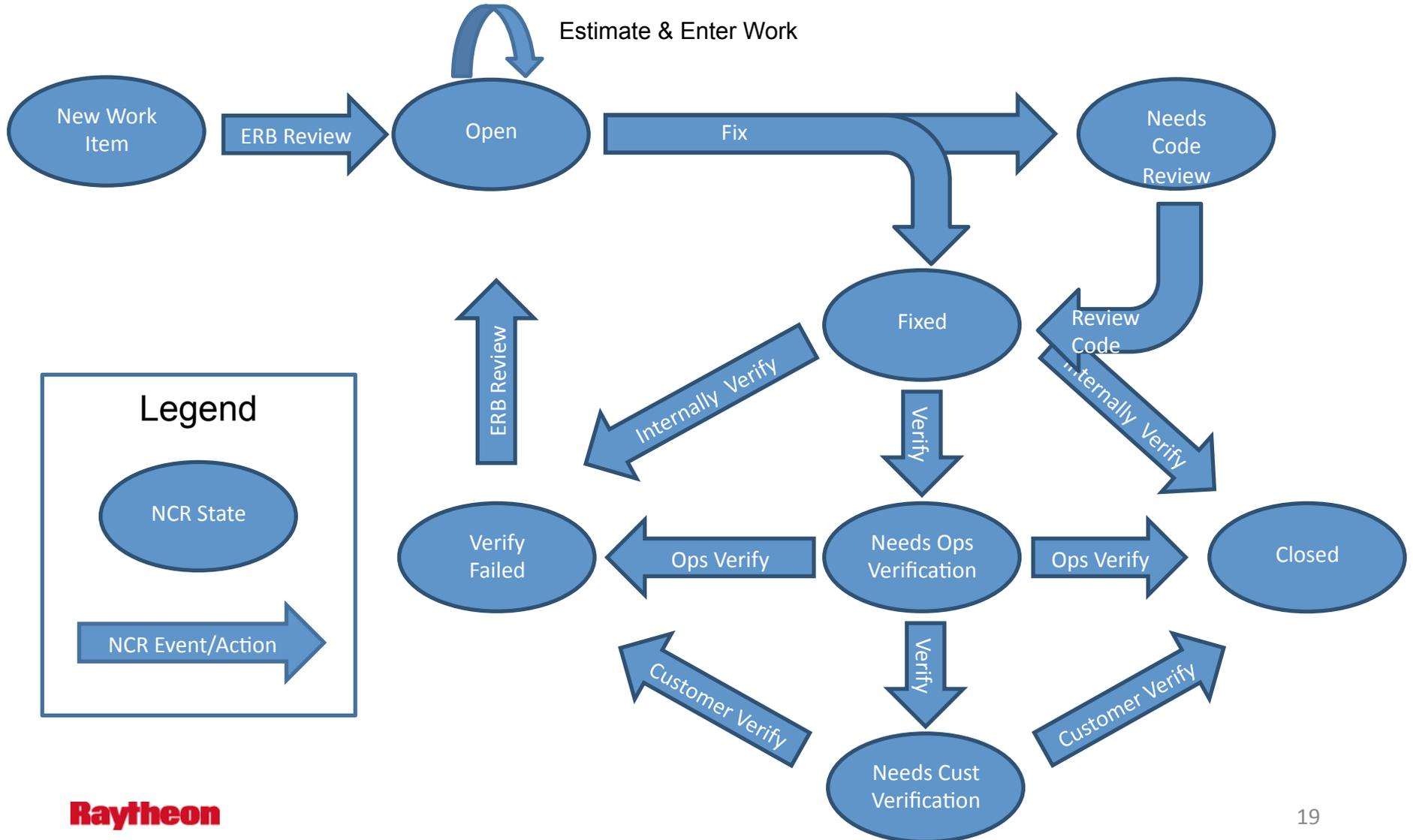
- **NCR (Needs Customer Verification)**

- After the ECHO Operations Team has verified and externally submitted NCR, the submitter is encouraged to verify the NCR in the Partner Test system.
 - If the NCR fails verification, the NCR is moved to the “Verify Failed” state.
 - If the NCR passes verification, the NCR is moved to the “Closed (Customer Verified)” state.
- It is possible that verification may occur when the release is Operational due to data requirements.
- The submitter may choose to verify the NCR prior to the Operations team verification. If this is the case, they do not need to wait for Ops Verification prior to failing verification or closing an NCR.
- If concurrence is required from more than one ECHO Partner prior to closing an NCR, each partner should place a comment on the NCR if they concur that the NCR can be verified. Otherwise, if they do not concur, they can move the NCR to the “Verify Failed” state.





NCR Workflow Diagram





Accessing Test Track Pro

- To access the Test Track Pro Web Client, do the following:
 1. Load an internet browser i.e., Internet Explorer, Firefox, etc.
 2. Enter the URL:
<https://links.gsfc.nasa.gov:20072/ttweb/login.htm>
 - If pop-ups are not enabled on your browser, you will be redirected to another web page which will contain a link to the TestTrack Pro login page. Follow this link.
 3. Enter your username and password and press the “Login” button.
 4. Select the **ECHO_TTs** project to view ECHO Trouble Tickets, or the **ECHO_Ops_NCRs** project to view ECHO Operational NCRs. Press the “Login” button.

Welcome to TestTrack

Please enter your username and password.

Username:

Password:

Login

Login to TestTrack Web

Select a project to login to.

Project: Refresh

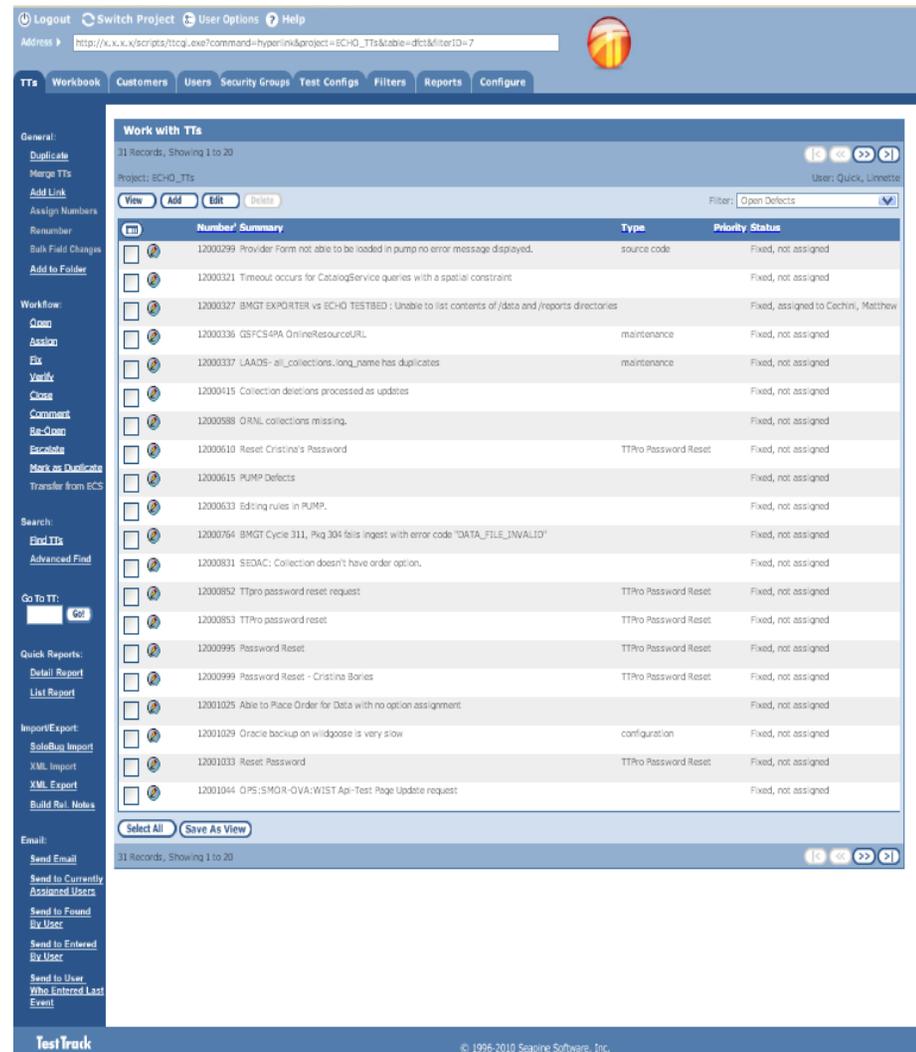
Start at:

Login Cancel



TestTrack Pro Navigation

- The main Defect List Window provides access to all TestTrack Pro Defect Records.
- You may change the list of displayed defects by selecting a filter from list of available filters.
- When editing a defect, the side bar links (review, assign, ...) will become active for each valid workflow event.
- All new users should update their  **User Options** before creating or editing defects. Some options cannot be changed by a Test Track Pro Administrator.



The screenshot displays the TestTrack Pro web interface. At the top, there are navigation links for Logout, Switch Project, User Options, and Help. Below this is a navigation menu with tabs for TTs, Workbook, Customers, Users, Security Groups, Test Configs, Filters, Reports, and Configure. The main content area is titled "Work with TTs" and shows a list of 31 records. The table has columns for checkboxes, ID, Summary, Type, Priority, and Status. The left sidebar contains various tools and options, including Duplicate, Merge TTs, Add Link, Assign Numbers, Reassign, Bulk Field Changes, Add to Folder, Workflow (Close, Assign, Edit, Verify, Close), Comment, Re-Open, Escalate, Mark as Duplicate, Transfer from ECS, Search (Find TTs, Advanced Find), Go To TT, Quick Reports (Detail Report, List Report), Import/Export (Solo/Bus Import, XML Import, XML Export, Build Rel, Notes), and Email (Send Email, Send to Currently Assigned Users, Send to Found By User, Send to Entered By User, Send to User Who Entered Last Event).

	ID	Summary	Type	Priority	Status
<input type="checkbox"/>	12000299	Provider Form not able to be loaded in pump no error message displayed.	source code	Fixed	not assigned
<input type="checkbox"/>	12000321	Timeout occurs for CatalogService queries with a spatial constraint		Fixed	not assigned
<input type="checkbox"/>	12000327	BMGT EXPORTER vs ECHO TESTBED : Unable to list contents of /data and /reports directories		Fixed	assigned to Cochini, Matthew
<input type="checkbox"/>	12000336	GSFCS4PA OnlineResourceURL	maintenance	Fixed	not assigned
<input type="checkbox"/>	12000337	LAA05- all_collections_long_name has duplicates	maintenance	Fixed	not assigned
<input type="checkbox"/>	12000415	Collection deletions processed as updates		Fixed	not assigned
<input type="checkbox"/>	12000588	ORNL collections missing.		Fixed	not assigned
<input type="checkbox"/>	12000610	Reset Cristina's Password	TTPro Password Reset	Fixed	not assigned
<input type="checkbox"/>	12000615	PUMP Defects		Fixed	not assigned
<input type="checkbox"/>	12000633	Editing rules in PUMP.		Fixed	not assigned
<input type="checkbox"/>	12000764	BMGT Cycle 311, Pig 304 fails ingest with error code "DATA_FILE_INVALID"		Fixed	not assigned
<input type="checkbox"/>	12000831	SEDAC: Collection doesn't have order option.		Fixed	not assigned
<input type="checkbox"/>	12000852	TTpro password reset request	TTPro Password Reset	Fixed	not assigned
<input type="checkbox"/>	12000853	TTPro password reset	TTPro Password Reset	Fixed	not assigned
<input type="checkbox"/>	12000995	Password Reset	TTPro Password Reset	Fixed	not assigned
<input type="checkbox"/>	12000999	Password Reset - Cristina Borjes	TTPro Password Reset	Fixed	not assigned
<input type="checkbox"/>	12001025	Able to Place Order for Data with no option assignment		Fixed	not assigned
<input type="checkbox"/>	12001029	Oracle backup on wildgoose is very slow	configuration	Fixed	not assigned
<input type="checkbox"/>	12001033	Reset Password	TTPro Password Reset	Fixed	not assigned
<input type="checkbox"/>	12001044	QPS:SMOR-QVA:WIST Ag-Test Page Update request		Fixed	not assigned



Test Track Pro Defect Screen

- When a defect is selected in the main defect list for viewing or editing, the page screen to the right is displayed.
 - The **Upper Panel** defines all related parts of the defect.
 - The **Lower Panel** display tabs that support NCR/TT series of events or lifecycle flow.
 - Field names in **bold** text are required, although all related fields should be input.
 - Trouble Ticket and NCR numbers are assigned after data entry of problem is committed.

Upper Panel

Lower Panel



Entering a New Trouble Ticket

- When adding a new Trouble Ticket, the following fields should be filled in by the submitter.
 - **Summary:** A brief/concise description of the problem (Mandatory)
 - **Submitter Site:** Identifies the submitter's location.
 - **Type:** Identifies the type of problem or request that the new Trouble Ticket is reporting.
 - **Product:** Identifies the associated subsystem.
 - **Entered by:** Identifies the individual submitting the Trouble Ticket. This is populated by the system, but can be changed to identify another individual. (Mandatory)
 - **Component:** Identifies the software interface.
 - **Severity:** Identifies the severity of the issue.
 - **Entered On:** Identifies the date the TT was created. This is populated by system, but can be changed.
 - **Mode:** Identifies the ECHO Environment where the Trouble Ticket issue was detected.
 - **Description:** A detailed, but concise description of the problem encountered. The description should include when the problem occurred, what inputs were used, reported errors, and any associated information.

NOTE: You must press the **Save** button to commit the new Trouble Ticket.



Tracking a Defect's Progress

- TestTrack Pro Client allows you to view all events in a Trouble Ticket or NCR's progress towards completion. A workflow listing is automatically captured to identify the series of events or activities associated with a trouble ticket or NCR. This listing is populated after the user has committed input and the trouble ticket moves through the lifecycle of the defect.
- Follow the steps below to view a TT's (or NCR's) progress :
 1. From the main defect page, select a Trouble Ticket and press the **view** button.
 2. From the defect window, select the "Workflow" tab found in the middle of the screen. (seen below).
 3. Select one of the workflow links to expand the full details for the event.





Failing NCR Verification

- To fail the verification of a **Needs Customer Verification** NCR, follow the steps below:
 - Select the NCR to edit from the main defect window.
 - On the side bar, the Customer Verify link will be active. (seen right).
 - Click on the Customer Verify link and the customer verify page (seen below) will be displayed.
- When failing an NCR, the following fields should be filled in.
 - **Customer Verify By:** Identifies the individual failing the NCR. This is populated by the system, but can be changed. (Mandatory)
 - **Date:** Identifies the date the NCR will be marked as verify failed. This is populated by the system, but can be changed. (Mandatory)
 - **Resulting State:** Select *Verify Failed*
 - **Notes:** A detailed description of why the NCR was verify failed. (Mandatory)

NCRs

Quick Reports:
[Detail Report](#)

Workflow:
[Assign](#)
[Customer Verify](#)
[Operations Verify](#)
[Release Notes](#)
[Comment](#)

Email:
[Send to Currently Assigned Users](#)
[Send to Found By User](#)
[Send to Entered By User](#)
[Send to User Who Entered Last Event](#)
[Send to Found By User](#)
[Send to Entered By User](#)
[Send to User Who Entered Last Event](#)

Customer Verify

Customer Verify By: Quick, Linnette Date: 09/13/2010 10:21:00 AM

Resulting State: Verify Failed

Notes:

Version:



Closing an NCR

- To successfully verify a **Needs Customer Verification** NCR, follow the steps below:
 - Select the NCR to edit from the main defect window.
 - On the side bar, the Customer Verify link will be active. (seen right).
 - Click on the Customer Verify link and the customer verify page (seen below) will be displayed.
- When closing an NCR, the following fields should be filled in.
 - **Customer Verify By:** Identifies the individual failing the NCR. This is populated by the system, but can be changed. (Mandatory)
 - **Date:** Identifies the date the NCR will be marked as verify failed. This is populated by the system, but can be changed. (Mandatory)
 - **Resulting State:** Select *Closed (Customer Verified)*
 - **Notes:** A detailed description of why the NCR was closed. (Mandatory)

NCRs

Quick Reports:
[Detail Report](#)

Workflow:
[Assign](#)
[Customer Verify](#)
[Operations Verify](#)
[Release Notes](#)
[Comment](#)

Email:
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[Send to Found By User](#)
[Send to Entered By User](#)
[Send to User Who Entered Last Event](#)
[Send to Found By User](#)
[Send to Entered By User](#)
[Send to User Who Entered Last Event](#)

Customer Verify

Customer Verify By: Quick, Linnette Date: 09/13/2010 10:21:00 AM

Resulting State: Closed (Customer Verified)

Notes:

Version:



Frequently Asked Questions

Q Where can I find additional resources for the Test Track Pro Web Client?

A The TTPro Web Client User Guide is available on the ECHO web site (<http://www.echo.nasa.gov>)

Q User Names and Passwords, are the case sensitive on login?

A WHEN LOGGING INTO ttpRO, USerNAMEs AND PAssWORDS ARE CASE-INSENSITIVE.

Q Are Users able to login into TTPro more than once?

A A Users is NOT allowed multiple logons.

Q Can Projects be removed from the login drop down list that can't be access by sites (i.e. GSFC_TTs)?

A I vaguely recall reading that Administrators could perform this action, but I can't find the writeup at this time. It might be in the new release. Try this: from the login screen, select Always login to this project using this username and password. It will automatically log you into your selected project every time you start TTPro. (Of course, there is always some security risk when saving passwords on disk.) To switch projects, just select File => Switch Project from the menu bar. The order of projects in the login list is controlled through the server. The projects are ordered in this way, to prevent Users from practicing in the Operational Projects - simply because they overlook that fact that a special project for training exists. Our plan is to move the training projects to the bottom of the Project drop down list by next week.

Q Can we hide/add columns that show up when viewing the defect list via the Web client? For example, how could a User show the "Entered Date", instead of "Type" data column?

A Yes. Select the View button, at the upper left corner of the list frame and you'll see an icon that resembles Roman columns. Click it and the rest is fairly self-explanatory. Tip: The Windows client lets you configure more columns than the Web client. If you configure your columns via the Windows client, you'll see them all the next time you use the Web client on the same machine.