

CAT 4.14 User's Manual

- Fundamentals -

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Chapter 1 Test Case Registration

The user can register, edit and register the test suite in the test management function. Please select "Test management" in the upper menu and do the operation.



1.1. Create a Test Suite in the CAT

There is a way to register a test suite from scratch. For uploading and registering the Excel or CSV file, please refer to section 1.2 for more details.

(1) Press the "New" button and press the new button in the list.



(2) The test specification registration screen will be displayed.



One sheet in the test suite will be registered at the initial state.



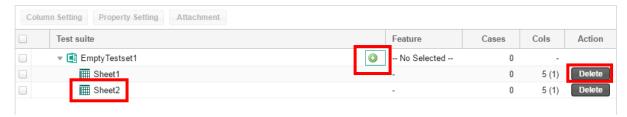
[Screen Items]

Item	Description
Columns setting	Setting sheet columns (item, type).
Property	Setting the properties (name, function*, test classification*, custom field*) of the test specification.
Attachment	Attach the file related to the test suite, such as the design document.
Test specification title	For setting the name of the test suite and its sheets.
Add sheet button	Add a sheet to the test suite.
Number of cases	The number of cases in the sheet (execution result's number of cells).
Number of columns	It is the number of columns in the sheet. The number in the parentheses is the number of execution result columns.
Action	The user can delete the sheet here.
Register	When the button is pressed, complete the test suite registration and check if there is any error message.
Cancel	Discard edited contents in the test suite and return to the test management screen.

^{*}It is possible to select from the service setting.

(3) Press the "+" button to add a sheet on the test specification Registration screen.

Test Specification Registration



One test suite allows up to registered 20 sheets.

Also, to delete the sheet, press the delete button on the right side.

(4) Test suite name will be changeable after left clicking the name itself

Test Specification Registration



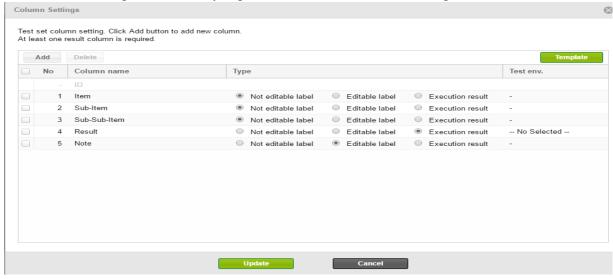
(5) To change the column names and attributes, click the sheet and press the column setting button.

Test Specification Registration



Besides, if there is at least a column existing in other sheets, then it is possible to select several sheets and edit them at once.

(6) Press the column setting button to display the setting screen. The header template will be applied as the initial setting if there is any registered one in the service setting.



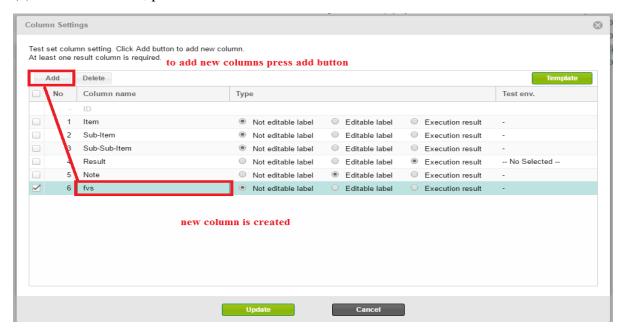
* To use other templates, press the template button on the upper right side of the screen.

[Screen Item]

Item	Description
Add	Add a new item.
Delete	Delete selected items.
Template	Setting up items through the template registered in the service.
No.	It is the case number.
Column name	It is the header of the test case.
Туре	The type of item displayed on the execution screen. Please refer to (10) for the detail of each type.
Test environment	It's only possible to set up the item corresponding to the result type. Please select the test environment for obtaining the execution result.

^{*} It is possible to select from the service setting definition.

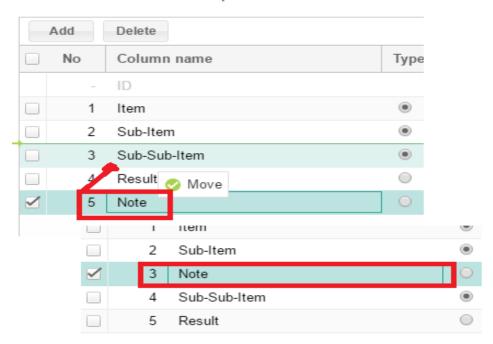
(7) To add a column, press the Add button.



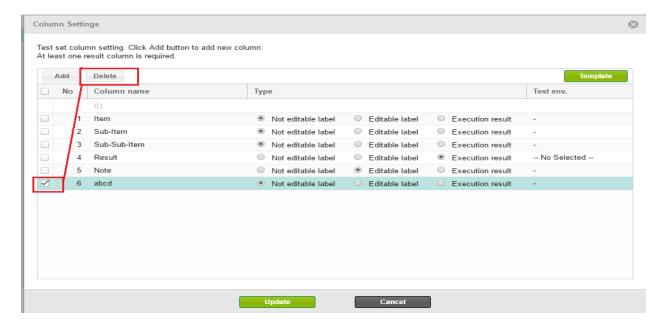
CAT requires at least two columns in a sheet.

(8) To move the column, please drag and drop it to the new position.

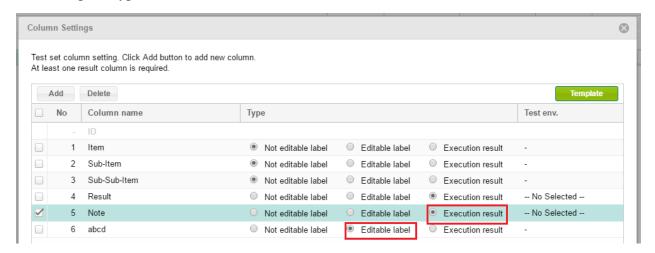
Test set column setting. Click Add button to add new column. At least one result column is required.



(9) To delete a column, click the check box of the column and press the delete button.



(10) Set up the type in each column.

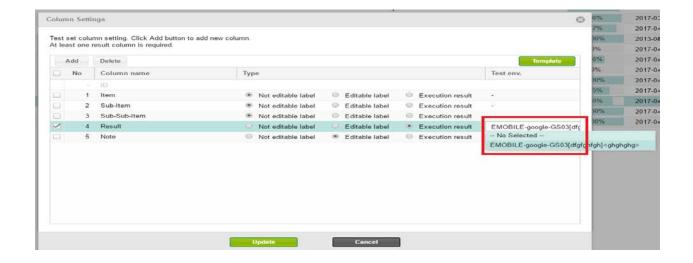


CAT requires at least one column for execution result in the sheet.

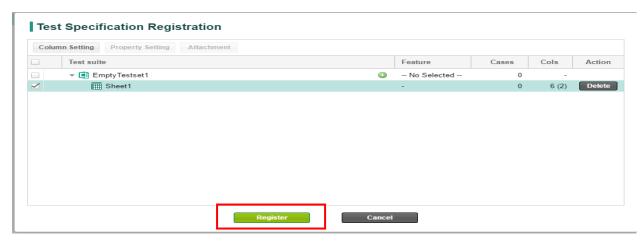
[Screen Item]

Item	Description
Non-editable label	The cell which's content is non-editable.
Editable label	The cell which's content is editable.
Execution result	It is a cell that allows OK, NG, Fixed, Pending, NA, and Unexecuted to be inputted as the value. It's also possible to set up multiple columns at once and please notice that it's required to set up at least one column.

Please click the drop-down list in the test environment column for execution result to set it up.



(11) Press the register button after setting up each item.



The item will turn to red if an error occurs.



× Moving the cursor on the icon shows the reason of the error.



[Main error message]

Error message	Meaning		
The sheet name is totally the same as the name of the test specification.	There is at least a sheet which's name is totally the same as the test specification name. Please change either one's name and make it unique.		
The header requires at least two columns, one as execution result column and the other one as the non-editable column.	Either there is only one column or the setting of the execution result column is missing. Please set up at least two columns for the header and make sure there is at least one execution result column.		
New test specification name is duplicated.	At least a name of test specifications to be registered is duplicated, please make the each duplicated name unique to fix this issue.		

Press the register button to fix the issue that caused the error and finish the registration.



(12) To continue editing the case, press the OK button in the confirmation message. For the editing, please refer to "1.3. Editing the test specification".

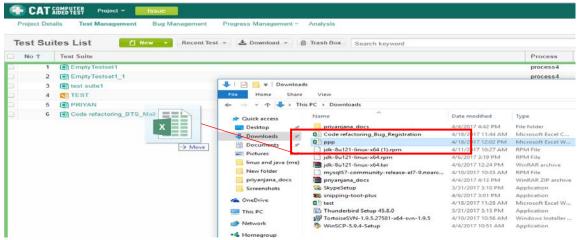


Or press Cancel button to return to the top of the test management screen.

1.2. Register a Test Suite by Uploading the Excel / CSV file

You can register multiple test specifications in batch with Excel (must be xlsx format) or CSV file format.

(1) To register the test specification through uploading, please drag and drop files (it is allowed to do it with several files at once) to the test suite list screen.

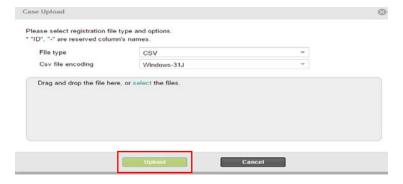


[Unloadable file types]

File type	Description
Excel test specification	"xlsx" format after Excel 2007 and later.
Zheer test specification	(Older format xls is not supported.)
CSV test specification	Text file of CSV format.

(2) The test specification registration screen will be displayed after confirming the file type, settings, and pressing the upload button.

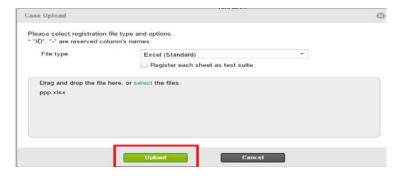
[Setting screen of CSV test specification]



[Screen item]

Item	Description
File type	Select the file type which can be recognized from files uploaded.
CSV encoding	Select from Windows - 31J (Shift_JIS), UTF – 8 or Unicode.

[Excel format setting screen]



[Screen items]

Item	Description
File type	Select the file type which can be recognized from files uploaded.
Register the sheet as a test specification	Separate all the sheets in the test specification and register each one of them as the independent unit.

(3) Set up columns and the specification name required and press the register button.

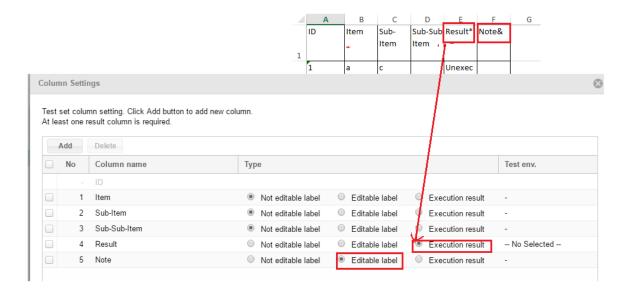


Please refer to 1.1 (5) above for the column settings and 1.3.2 for property and attachment settings.

The type of the column will be automatically registered if the special character in the following table is set up at the end of the item name in the Excel / CSV header after the uploading.

[String that can be registered in specification in header of test specification]

Characters	Type to be set up while uploading			
*	Execution result type			
&	Editable type			
#	Not accepted (can set up to avoid being uploaded)			



- (4) Press the register button after setting up each item (column setting, property, and attachment).
- (5) The line turns to red if any error occurs.



(6) X The reason that caused the error will be shown if you move the cursor to the icon.

Test Specification Registration



[Main error messages]

Error message	Meaning		
The sheet name is totally the same as the name of the test specification.	There is at least a sheet which's name is totally the same as the test specification name. Please change either one's name and make it unique.		
The header requires at least two columns, one as execution result column and the other one as the non-editable column.	Either there is only one column or the setting of the execution result column is missing. Please set up at least two columns for the header and make sure there is at least one execution result column.		
New test specification name is duplicated.	At least a name of test specifications to be registered is duplicated, please make the each duplicated name unique to fix this issue.		

Press the register button to fix the issue that caused the error and finish the registration.

* The following figure is an example of Excel and CSV file of the test case.

[Excel file example]

* Up to 20 sheets can be added.

Δ	Α	В	С	D	Е	F	G
1	ID	Heading	Sub Heading	Sub-Sub Heading	Expected Result	Result*	Memo&
	1205	BTS Mail	Bug Title	To check that the bug	BTS mail should contain	ок	1.Application is opened.
				title correctly	the correct bug title.		2.User is logged in with User id
2				displayed.			
	1206	BTS Mail	Bug URLx	To check that user	user should access the bu	Fixed	1.Application is opened.
				access bug			2.User is logged in with User id
				registration screen			dinesh.dodwani@shiftinc.jp & password
				from URL or not.			�dinesh.
							3. Opened "Project List" .
							4. Click on setting button.
							5. Click on Project Management than click New
							Refgister button.
							4. Register a project and assign the user for
							that project.
							5. Click on the 'Project List' link.
							4. Clicked on any project from list.
							5. Project Details displayed.
							6.Clicked on "Bug Management".
							7. Click on Bug Registration button.
3							8. Register the bug.
	1207	BTS Mail	Bug Content	To check that the BTS	BTS Mail should contain	Fixed	1.Application is opened.
i				mail for bug	the bug content.		2.User is logged in with User id
				registration contain			dinesh.dodwani@shiftinc.jp & password
				the bug content field.			�dinesh.

[CSV file example]

When entering the string including characters like *, (comma) please enclose it with "(double quotation).

	Α	В	С	D	E	F	G
1	ID	Heading	Sub Heading	Sub-Sub Heading	Expected Result	Result*	Memo&
	1205	BTS Mail	Bug Title	To check that the bug	BTS mail should contain	OK	1.Application is opened.
				title correctly	the correct bug title.		2.User is logged in with User id
2				displayed.			
	1206	BTS Mail	Bug URLx	To check that user	user should access the bu	Fixed	1.Application is opened.
				access bug			2.User is logged in with User id
				0000000			

1.3 Editing the Test Suite

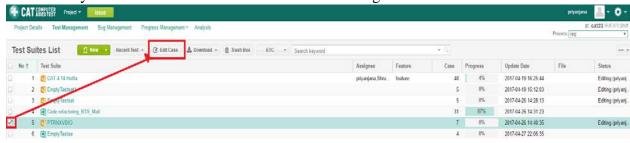
This section explains how to edit the test specification and settings of it.

1.3.1 Editing the Test Suite

Here is the way to edit the test specification on the browser is as below:

(1) Select the test specification to be edited and press the case edit button.

* The test suite will be locked if it is under the editing, which disables the revision and the execution by other users. Please refer to 1.3.2 for knowing how to unlock the test suite.



(2) The screen for editing will be displayed on a new browser tab, where the case content can be edited. It's possible to add, delete, move, copy and paste the content of the row/column.

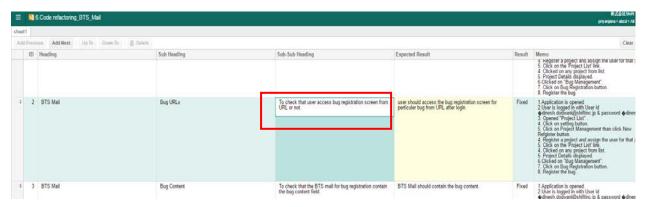


Each new browser tab corresponds to an independent test specification.

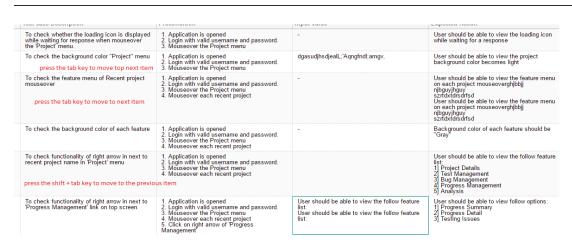
[Screen Item]

Item	Description
Menu (≡ icon in upper right side)	For those being edited, it's possible to save, cancel or move them to the test execution or test suites list screen.
Tab	Each tab represents a sheet in the test suite. Please select the sheet you'd like to edit.
Add Sheet (+ icon)	Add a new sheet.
Add previous/next	Add an empty line above or below by selecting an existing row and press add previous/next button.
Up/down to	Move the selected row up or down by choosing an existing row and press the up/down to the button.
Delete	Deletes the selected row.
Clear	 Clear the Filter: Clear filter settings. Reset: Return filter settings and column width back to the initial status.

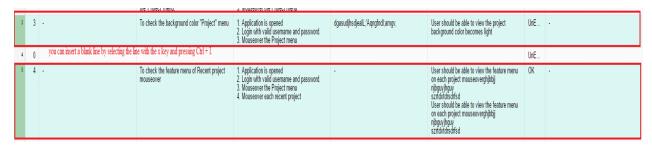
(3) To input characters, click any cell to be edited and press the Enter key.



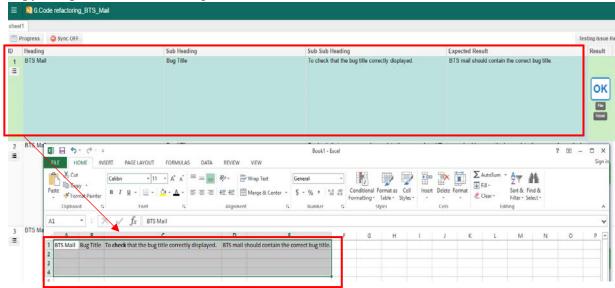
Press the Tab key to move to the next item.



With a cell selected, the user can insert a blank line by pressing Ctrl + I with x key.



(4) For those who would like to copy multiple cells, please select and all cells and press Ctrl + C to copy and paste them to the targeted excel file.



To paste copied contents to CAT, press Ctrl + V.

* If you include the execution result which is outside the existing scope like "OK" or "NG" before pasting, an error will be triggered and its message will be shown.

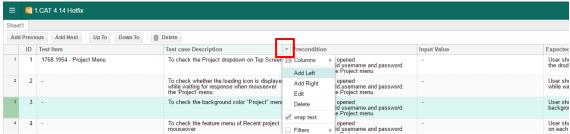


[Shortcut key list]

Key	Operation
Cursor key	Move cells
Enter	Input sth into an editable cell
Alt + Enter	New line (editing)
Delete	Clear cell
X	Select row
d	Delete row
$Ctrl + \leftarrow or \rightarrow$	Move tab
Ctrl + I	Add a new row above the selected row
Ctrl + S	Save
Ctrl + C	Copy selected cells
Ctrl + V	Paste to the selected cell
Ctrl + Z	Return to the previous status
Ctrl + Y	Redoing
Ctrl + Shift + F	Switch to the execution mode

^{*} You can check the same table by pressing i (Help) mark in the upper right side of the window.

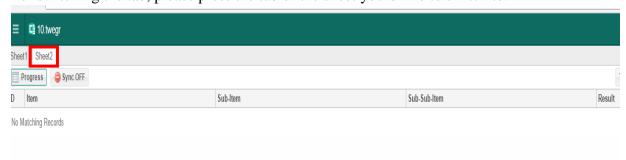
(5) Press ▼ displayed on the right side header when adding or editing the column.



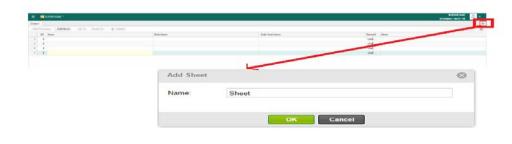
[Screen Item]

Menu	Operation
Column	Display or hide the item
Add to left (right)	Add the column to the left or right side of the selected column
Edit	Edit the column name/attribute
Delete	You can delete a column
Wrap text	Wrap and display characters over the right border of the cell
Filter	Set the filter for each item

(6) For switching the tab, please press the tab of the sheet you'd like to switch to.



(7) Press the + button to add a sheet.



(8) To copy/delete the sheet or change the sheet name, right-click the sheet tab and select items from the menu.



(9) To save the test specification, discard content changes or go to the test execution mode, please press the menu on the upper left side and select the item from it.

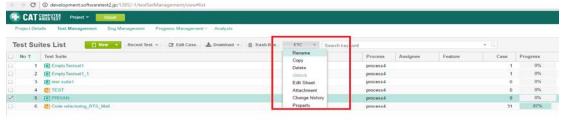


[Screen Items]

Menu	Operation
Save Changes	You can save and continue editing.
Discard changes and exit	End editing the test by switching off the editing status (locked by executing or editing by other users).
Move to test execution mode	Return back to the test execution screen by switching off the editing status.
Move to test management mode	Return back to the test suites list screen when editing the test case. Unlock the test suite in the test suites list screen (please refer to 1.3.2 for details).

1.3.2. Other Operations such as Test Suite Attribute Editing

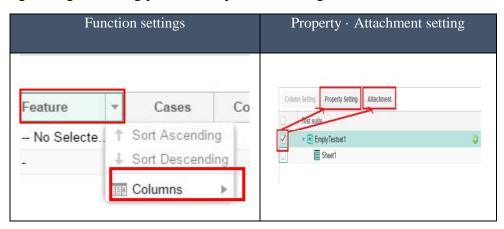
(1) Click the check box of the test suite that you'd like to manipulate and press the ETS button, then select an operation from the drop-down list.



[Screen Items]

Menu	Operation
Rename	Change the name of the specification
Сору	Copy the test specification to the same or different project/process.
Delete	Delete the test specification
Unlock	Unlock the editing status (it's possible to unlock several test suites at once too)
	Please notice that if there is any other user unlock the test suite while someone is editing it, all the changes will be discarded. Therefore, do remember to check whether there is anyone using the test suite you'd like to unlock before pressing the unlock button.
Edit Sheet	The user can change the sheet name, move the sheet between test suites (drag-and-drop is also allowed) and set up the column in the sheet.
Attachment	Files can be attached to the test specification.
Change	Display the version history that comprised of all changes made
History	by the user since the test suite was created
Property	You can register the functions of the test specification, the test category, and the custom field.

Note: It's possible to set up the property and upload attachments for the test suite while registering it [Setting part of test specification registration screen].



1.4 Check the Test Suites List

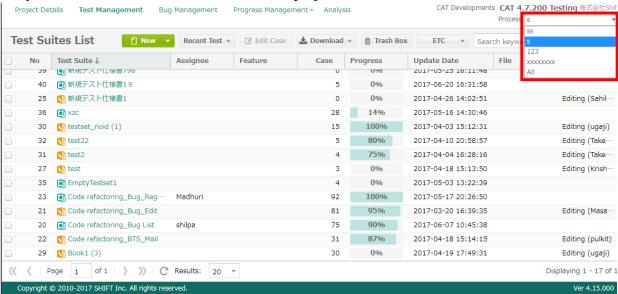
The user can check test suites through following procedures:

(1) Select a project



(2) Select the "Test management" from the upper menu to display the test suites list. For displaying test suites in other processes, please press the process drop-down list on the upper-right side of the screen and choose another one from it.

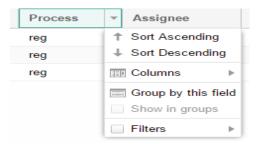
* If you select "All", then all test suites in the project will be listed out.



[Screen Items]

Item	Description
Registration	Press this button for uploading the new test suite or file
Recent tests	Displays 10 latest edited or executed test suites
Download	Press to download the test case and files attached to it all at once
Trash Box	Browse, restore or completely remove the test suite you ever deleted
Search keyword	Search the test case by the key word
Filter (icon)	Reset the current filtering or grouping settings
Test suites list	The list of test suites in which the icon type represent the editing status as below:
	Able to be edited or executed
	Editing (Users beside the one who is editing, can't edit nor execute)
	□Locked (can't be executed)

(3) Change display settings of the test suites list by utilizing the column function. Change the column functions by selecting the item in the drop-down list shown as below by pressing the lower triangle mark in the right side of each column.



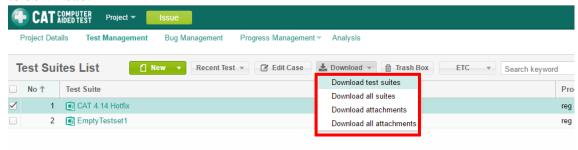
[Screen Items]

Item	Description
Sort	Sort the assignment in ascending/descending order
Column	Display/hide the column
Grouping	Grouping the issue by its element, which can be canceled by unclicking the check box
Filter	Display / hide the issue by its element

1.5 Download the Test Suite File in either Excel (xlsx) or CSV Format

Test suites can be downloaded in either Excel format (xlsx) or CSV format.

(1) Press the Download button and "Download test suites" after selecting test suites you'd like to download.



Please press "Download all suites" if you'd like to download all test suites.

(2) The test suite download window will pop up, in which the user can select the file type format.

[File Types]

File type	Meaning
Excel	You can download files in Excel format (xlsx)
CSV	You can download files in CSV format

[File Formats]

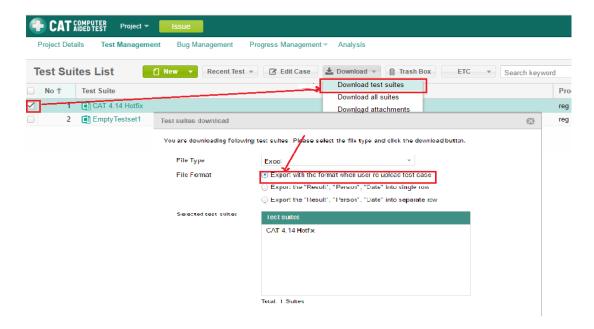
Format	Meaning
Output the format for	It is a format without execution result history (updater,
importing and reusing test	update date, Bug ID) included.
cases again	Please do use this format to upload, which can be finished
	by drag and drop
	, , ,
Output the result, executor	It has a history in execution results
and date to one column	
Output the result, executor,	Output the result history (results, registration day and user
and date to separate	cases) to different columns separately
columns	

(3) The downloaded file will be in ZIP format, in which can be de-freeze by tools like 7 ZIP

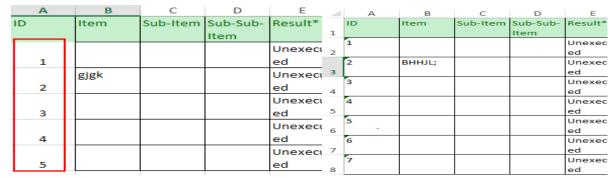
1.6 Overwrite by Uploading an Excel File or CSV File

The user can overwrite the existing test suite by uploading the test suite downloaded in either Excel or CSV format from the CAT.

(1) Please download and edit the test suite to be uploaded by procedures illustrated in the previous chapter: "Output the format for importing and reusing test cases again"



It is possible to download the test suite with each test case ID in it.



Test cases will be overwrite one by one based the test case ID corresponded.

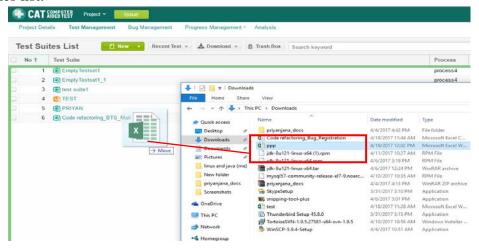
[Actions Corresponding to the Content Changes]

Change	Action
The content was changed	Update the row content.
The row was deleted	Delete the row.
Add a new empty row	Register a new row.
Add the row which's ID is not existing before	It'll cause an error. For adding a new row, please add one without any ID assign to it.

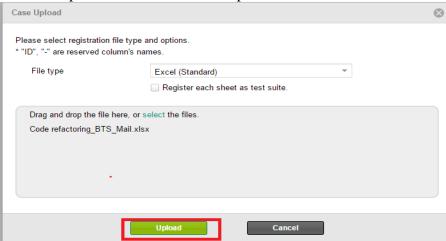
The test suite with the format which is not downloaded from the CAT can't be used for uploading to overwrite and is not able to add ID column also, which will cause an error.



(2) Select the test suite (in Excel or CSV format) you'd like to upload and drag and drop it to the test suites list.



(3) Press the upload button in the Case upload window as below

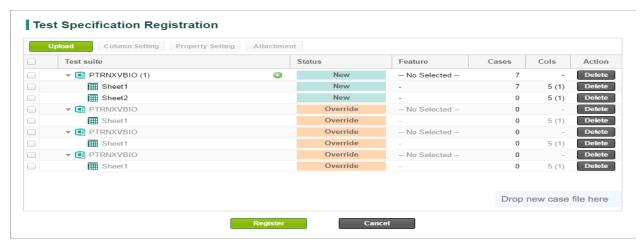


(4) The status will be "Overwrite" the test suite you uploaded to share the same name with the existing ones.



Please check and confirm the number of test cases after uploading.

It's possible to register multiple test suites including both the new one and the one for overwriting.



Press the register button after the confirming the content and move back to the test suites list screen.

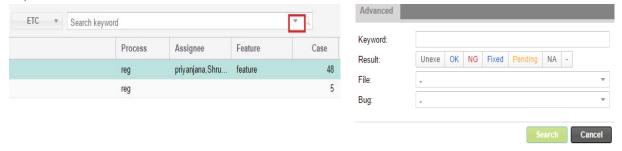
1.7 Search the Test Case

The user can search the test case among test suites.

(1) Enter the keyword you'd like to search in the search box and press the Enter key to start it. It's also possible to search several keywords with "AND" and one-byte space as the separator.



(2) Advanced search settings will be shown by pressing the lower triangular button in the search box, which is possible to search by special conditions such as whether it contains the attached file, issue and so on.



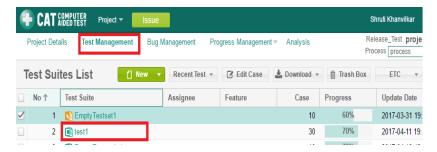
Item	Description
Keyword	Search cases that contain the keyword inputted, which can be executed with AND by separating keywords with space. By inputting the keyword following - (half-width character hyphen), these keyword-included results will be excluded.
Execution result	Search test cases that contain the keyword inputted, which can be executed with OR if there is more than one keyword.
File	Search with the condition whether there is an attached file or not
Bug	Search with the condition whether there is a bug attached or not

(3) Will move to search result screen after searching, which shows up to 300 results Press "Back to Test Suites List" button to return to the test suites list screen



Chapter 2 Test Execution

It's possible to execute the test case, upload the evidence file and report the bug on the test execution screen. Select the test suite after showing the test management screen and process to the next stage.



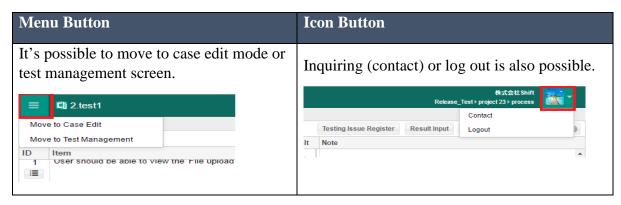
Next, we have the test execution screen. [Screen Components]



Following are descriptions for each element on the execution screen:

[Description of each Element]

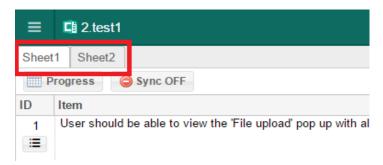
1. Header [Screen Items]



2. Tab

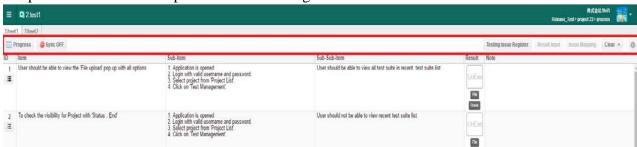
Taps represent sheets in the test suite, the test case will be shown after clicking the tab.

[Screen Items]



3. Menu bar

It's possible to do lots of operations like closing the test suite and so on.



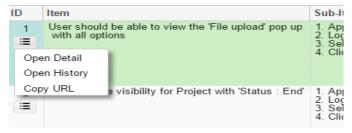
[Screen Items]

Item	Description
Progress	The user can check the current progress of the test suite execution.
Sync ON/OFF	The user can apply the current column width on other test suites by adjusting ON/OFF. Displaying a test suite with Sync ON as the setting on the top applies the previous column settings.
Testing Issue Register	The user can report the issue which is not a bug like the inadequate environment for testing. Please refer to "4.4.1. Register test assignment" for more details.
Result Input	It's possible to input the test result by selecting the option in result column to activate it. Please refer to "2.1 Test execution" and "2.2 Input test results in a batch".
Issue Mapping	It's possible to link the test issue with the test result. Please refer to "2.6 Link the existing issue to the test case" for more details.
Clear	The filter and column width are resettable by clicking "Reset Column" (back to the initial status) and "Clear Filter".
Help	Display the help information.

4. Test case area

The user can display the test case and input the test results in the sheet.

Besides, further operations are also possible by selecting an item in the list shown by clicking the menu button.



[Screen Items]

Item	Description
Open Detail	Each displayable case is also executable, please refer to "2.7 Show test case in detail" for more details.
Open History	It's possible to check the change history of each case, please refer to "2.8 Show the change history" for more details.
Copy URL	The user can get the URL to move to the test case.

It's possible to do the further operation in testing execution cell.



[Screen Items]

Item	Description
File	It's possible to attach a file to the test case. Please refer to "2.4. Attaching the file to the test case" for more details.
Issue	It's possible to report an issue linking to the test case. Please refer to "2.5 Reporting the issue during the test execution".

5. Footer

It's possible to do following operations in the footer.

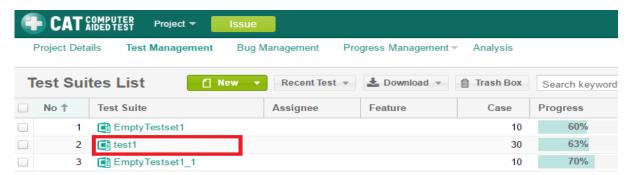
[Screen Items]

Item	Description
Paging	Changing the page.
Display Results	Change the number of displayed items. The user can choose from 10, 20, 50, 100, 200 and 300.
Font size	Change the font size, in which the user can do it by choosing from 5 stages.

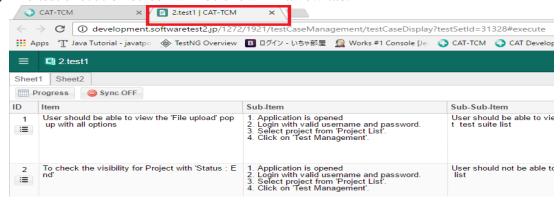
2.1 Execute the Test

Input the test result by following steps.

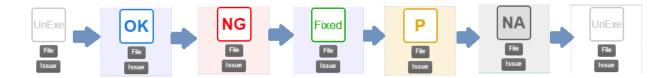
(1) Select the title of a test suite in the test suites list.



(2) The test execution screen will be shown in a new tab.



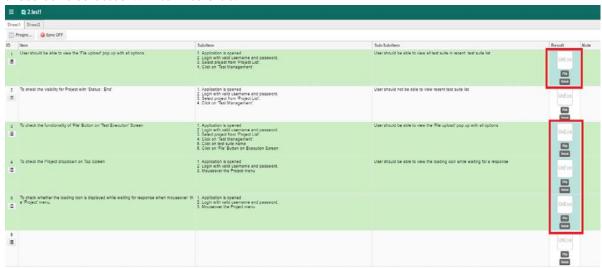
- (3) The user can change the execution result either by clicking test execution button or pressing the space key while anchoring to the testing result cell.
 - * It changes in the order of $OK \to NG \to fixed \to Pending (P) \to Not Applicable (NA) \to Unexecuted (UnExe).$
 - * The testing result can be changed in a reverse order by holding the Shift key while changing the result.



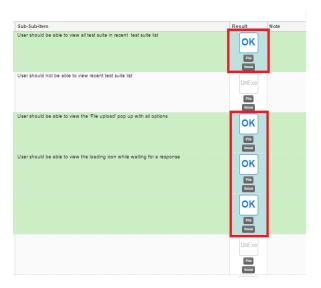
2.2 Enter Execution Results in Batch

The execution result can be changed in batch by the following steps.

(1) Select several result cells while holding the Shift or Ctrl key and then the background color of those cells selected will turn to blue.



(2) Press the space key to change the result. (You can change it to other results besides OK by pressing it more times)



^{*} It is also possible to change the result with the mouse operation of pressing the result inputting button in the upper right of the window.

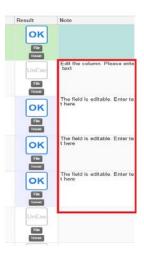
2.3 Edit the Test Case

Contents in these editable cells are modifiable by following steps.

(1) Press the Enter key after double-click on the editable cell to switch it to the edit mode.



- (2) Press the Enter key to confirm and save the editing content. For inputting a line break in the cell, please press Alt + Enter.
- (3) It is possible to copy the content from a not editable cell by pressing Ctrl + C and paste it somewhere else with Ctrl + V. Besides, it's also possible to copy or paste contents from multiple cells at once by holding the Ctrl or Shift key.



The user can copy the cell content to the clipboard, which can be utilized when reporting the issue.

2.4 Attach the File to the Test Case

It is possible to upload the file to each test case on the test execution screen, which makes referring the evidence for each case become viable.

(1) Press the file button under the execution result on the test execution screen.



(2) A window for uploading the file will pop up.

It's possible to upload the file either by pressing the upload button or drop-and-drop the file to the gray area.

* The maximum size of a single file that can be uploaded is 10 MB and the maximum number of files can be upload at once is ten.



Besides, it's possible to copy the picture from other software and paste to the upload window directly, then the next screen will pop up for confirming the picture file to be uploaded.

By setting the file name as well as pressing the register button, the file will be saved in jpeg format (The maximum photo size allowed is 3840 x 2160 pixels).



The picture file captured, annotated and processed by other capture software can be uploaded through the clipboard. This function exists in other functions such as the attaching the file to the issue in the issue management function.

(3) The number of items attached will be displayed in the badge.



Number of items is displayed with a bagde. When click on badge File list is displayed

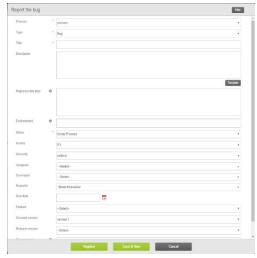
2.5 Register an Issue during Test Execution

It is possible to report an issue from the test execution screen during test execution.

(1) Press the 'Issue' button of the test execution result to register the issue.



(2) Please input contents to be registered and press the register button after the inputting. The setting of environment and function will be automatically included if there is any related setting linked to this test case.



If an issue is found during test execution, you can report an issue from the test execution screen.

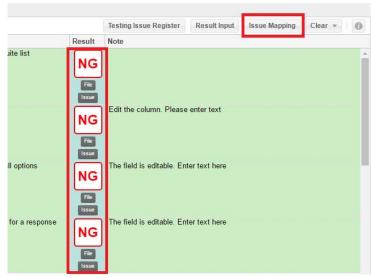
(3)A badge can be displayed at the upper right of the 'Issue' button. The number on it represents the number of issues linked. The user can check the detail of issues linked by mousing over the badge.



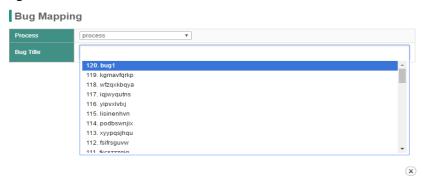
2.6 Link an Existing Issue to the Test Case

It is possible to link the registered issue to a test case from the test execution screen.

(1) Select one execution result or multiple ones by holding Ctrl key and then press the 'Issue Mapping' button.



(2) Select the issue shown by choosing the process and then pick out those you'd like to link with on the popup. Select several issues at once is also possible, please remember to press the register button after selecting.



(3) Those newly registered issues will be shown on the upper-right side badge also.

Following are related badge colors:

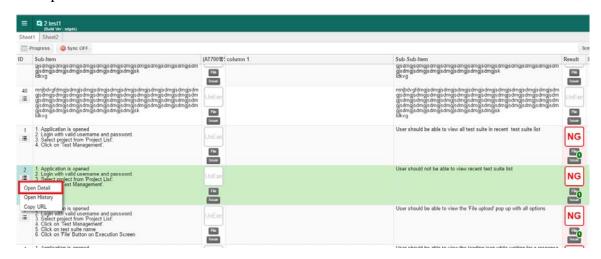
Red: There is at least one issue which is still not fixed.

Green: All issues are fixed.

2.7 Display Case Details

You can check the test case in the detailed view.

(1) Press "Open Detail" of the test case in the ID column.



(2) Case details will be shown in the popup.

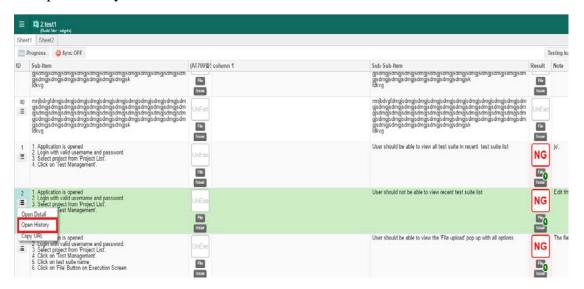


Item	Description
Previous/Next	The user can change to the previous/next test case.
Execution Result	Show the test case's execution result.
Details	Show the test case's contents.

2.8 Display the History of Changes

You can check the change history of the test case.

(1) Press "Open History" of the test case in the ID column.



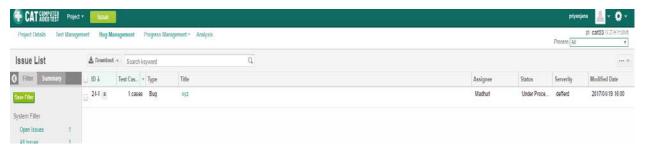
(2) The detail of the History of Changes will be shown in the popup and those changed will be marked with yellow as the background.



Chapter 3 Bug Management

Bug management is a function that unifies the management of those issues (bug, inquiry, and request) which occur quite often during the software development and shares issues with team members for solving collaboratively. Select the project to use and then click the "Bug Management" in the upper manual to show the bug management screen.

[Bug management function's top screen]



It's possible to register, refer, edit and delete the issue from bug management screen. Besides, filter settings can also be applied to look up the registered issue.

Linking CAT's bug management function with external BTS (bug tracking system) is also feasible, please refer to "CAT User Manual - Application -" for more details.

3.1 Check the Issue List

Listing all the issues registered on the issue list screen is possible, the user can also utilize the filter function on the top of each column to narrow down issues shown on the list. Furthermore, buttons on the upper side of the screen can be utilized for many operations.

Buttons for different kinds of operation on the upper side of the issue list screen will be illustrated in this section.

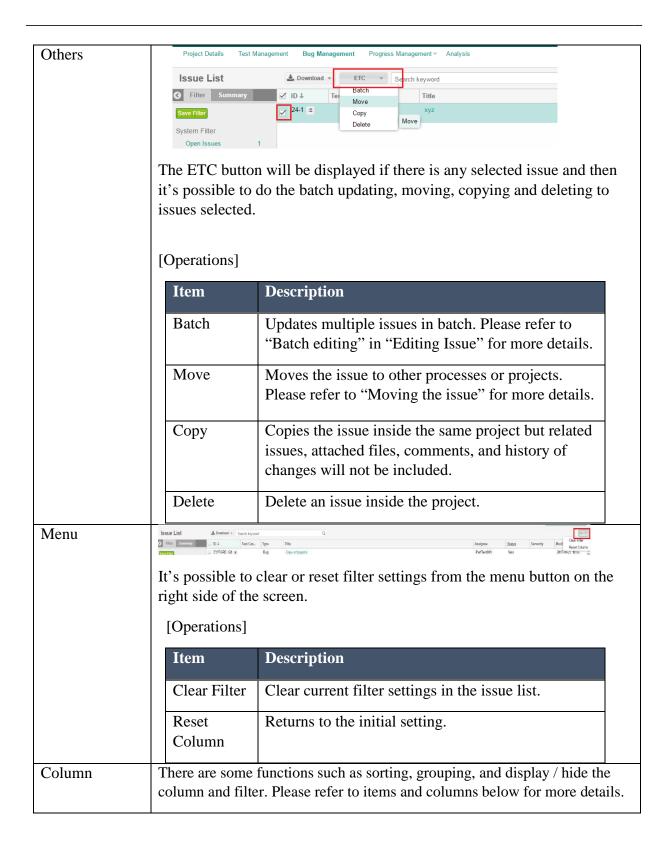
[Issue List]



Item	Description
ID	There is a menu on the right side of the issue number, in which contains both edit button and URL copy button by mousing over it. Edit Button The screen for directly editing will be shown. Copy URL Copy URL Copy the URL address to the clip board.
Case ID	It displays the number of test cases linked and its ID in which can be clicked to move to the test execution screen.
Title	The title of the issue in a form of hyperlink in which the user can click and move to the issue reference screen.
Person in charge	The person in charge.
Status	Issue's status.
Severity	Issue's severity.
Modified date	Issue's time of update.

[Button Descriptions]

Item	Description
Search	Search if any of the existing title, summary, and comment contains words inputted for searching.
	* It is possible to search several keywords by separating them with "AND" and space.
	* By inputting the word following "-" (half character width hyphen), those search results with it will be excluded.
Download	[The file to be download and its format] CSV: Exports the issue list to the CSV file to download. CSV + Test Case: Exports the issue list with test cases linked to the CSV file to download. Files attached: Download the issue list with all attached files. [Download Scope] All: You will get all the subjects that exist in the selected process. Filter scope: Acquires only the tasks in the range filtered by the list. The scope of columns and filters to be displayed: Get columns to be displayed in the list.

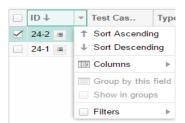


[Column Display Settings]

Issues can be listed with different kinds of setting which is preservable for the reuse.

* Please refer to "3.6 Utilizing My Filter" for more details about preserving filter settings.

Illustrate ways to modify display settings of issue list. The width of the column can be adjusted and the lower triangle button will be shown when mousing over, in which can display the drop-down menu and do settings on it.



[Operations]

Item	Description
Sort	Sort issues in ascending/descending order.
Column	Display/hide the column.
Group	Elements can be categorized into groups, in which can be declassified by uncheck the check box.
Filter	Display / hide elements of the issue. These keyword-included search results can be excluded by inputting the keyword following - (half-width character hyphen) like on order reference screen.

3.2 Register a New Issue

Steps for registering the issue is as below:

(1) Press the issue report button on the upper left side of the screen header.



- (2) Register the new issue by inputting required information and press register button. Please refer to "Registering the issue during the testing" in "7. Test Execution".
- * Issues registered from the Bug Management screen can't be automatically linked to the test case, in which can be utilized for registering the issue not connecting to any test case. For the occasion that users have to link the issue with the test case, please refer to "Registering the issue during the testing" and "Linking the existing test case to the issue" in "7. Test Execution"

3.3 Refer to Issues

Following steps are for referring the issue content.

(1) Select the issue title on the Bug Management screen.



(2) It's possible to check up details of the issue.



[Screen Items]

Item	Description
Edit	In addition to issue editing, making the comment is also possible. Please refer to "3.4 Editing the issue" for more details.
Share	The notification e-mail will be sent when there is any issue change happened. Please refer to the next section "3.3.1. Setting up Sharing".
Add Related Issues	It's possible to add related issues. Please refer to the next section "3.3.3. Add related Issues" for more details.
Attach the file	Press the "select file" button to add the file to the issue.
Comment	Press the comment button to add the comment and please refer to "3.3.4. Make the Comment".
History	It's possible to check the history of changes. Please refer to the next section "3.3.5. Checking the History".
Move and Copy	It's possible to move or copy the current issue by selecting the item in the dropdown list shown by pressing "More" button. Please refer to "3.4. Editing the Issue" for more details.

3.3.1 Set up the Sharing

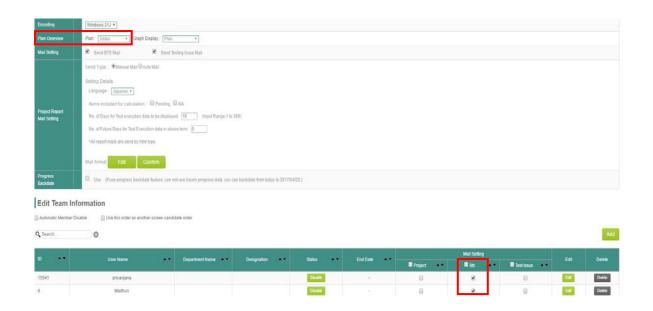
It's possible to send the notification e-mail when there is any issue registration, editing or deleting happened. Here are some illustrations for this function.

• Notification settings for issue registration.

A notification email will be sent based on the setting of "Send BTS Mail" when a new issue is registered.

[Requirements for sending the email]

- Click on the "Send BTS Mail" setting in the project's email setting section.
- Click the check box of BTS item in the email setting of Edit Team Information.



With settings above, the notification email will be sent to team members whose email setting is on when there is a new issue registration. Besides, it will also be registered as the initial setting for sharing.

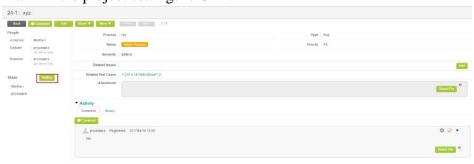
- * Besides above settings, the notification email will be sent to the in charge and the reporter as default.
- * Members who do the issue registration or modification will not receive the notification email.
- Please modify share settings after the issue registration and notice that the sharing function will be automatically excluded with following occasions.
 - a. The member left the team
 - b. The user status was invalided

• Add the receiver for issue sharing.

Here are ways to add the receiver from the reference screen.

(1) Press the Share button.

** The setting button will be invalid and related execution can't be executed also if "Send BTS Mail" in the project settings is OFF.



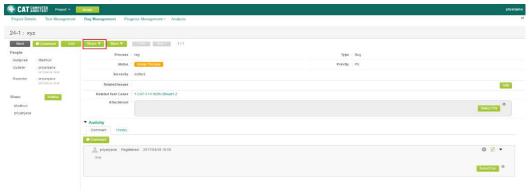
(2) Please set up share targets and press the save button and notice that it's possible to select the receiver from project members. The notification email will be sent to all receivers except the register and the issue editor.



3.3.2. Send the Message

It's possible to send the message to members handling the issue together by the function of sharing. Here is the way to send the message to members on the reference screen.

(1) Press the share button on the issue reference screen.

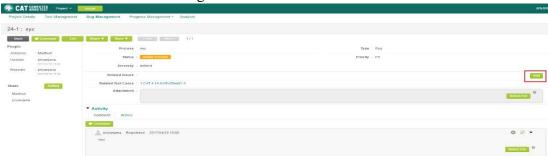


(2) Press the send button after inputting the receivers and the message.



3.3.3 Add Related Issues

(1) Press the Add button for adding related issues.



(2) Please select related issues after inputting the project and the process and notice that the maximum number of linked issues is twenty. Press the register button after the selection to finish the registration.



3.3.4 Make a Comment

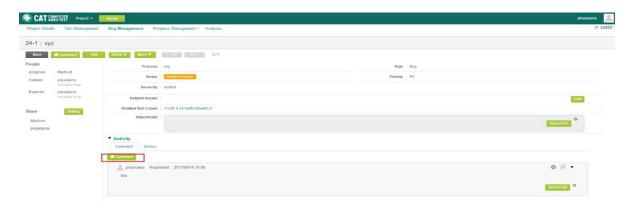
There are two ways to make the comment as below:

- (a) Make a comment on the issue editing screen.
- (b) Make a comment from the reference screen

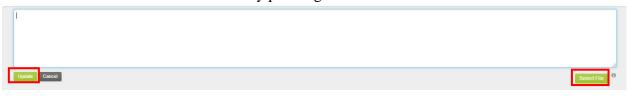
It's possible to add the attachment when making the comment on the issue reference screen.

- 1. Make a comment on the issue reference screen.

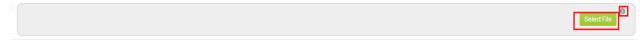
 Please refer to "3.4.1. Edit from the edit popup" for more details since it's possible to add the comment as well as other items on issue editing screen.
- 2. Make a comment from issue reference screen
 - (1) Press the comment button.



(2) Press the comment button and update button to make a new comment. Attach the file related to the comment by pressing Select File button.



It's also possible to attach the file after making the comment, as well as to edit or delete the comment.

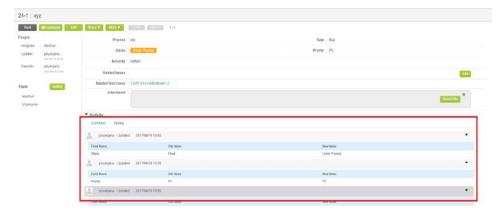


* Mail notification function on the reference screen.

The notification email will be sent to members if there is any field been modified or a comment appeared on the issue reference screen. Thus, please remember to use the comment to share the updated information with all members with the comment.

3.3.5 Check the History of Changes

The user can check the history of changes by pressing the "History" tab.



3.4 Edit an Issue

This section illustrates three ways to edit registered issues as below:

[Ways of Issue Editing]

- 1. Edit from the edit popup screen
- 2. Edit from the issue reference screen
- 3. Edit in batch

Editing on the edit popup screen is the most basic way of editing the issue, which is suitable to edit multiple status and summaries that contain long contents.

Editing on the reference screen is especially suitable for those minor editing which doesn't require to open the reference screen.

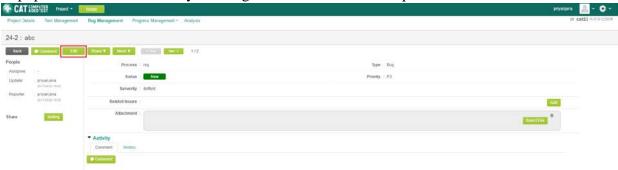
3.4.1 Edit from the Edit Popup

(1) Open the issue edit popup screen.

The edit pop-up screen can be launched by following ways.

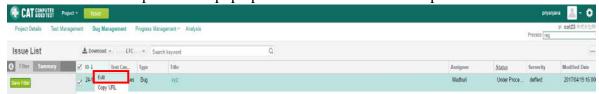
- (A) Click the "Edit" button at the top of the issue reference screen.
- (B) Press e key on the issue reference screen.
- (C) Click "Edit" item from the dropdown list of the function icon in the ID column on the issue reference screen.
- (A) Click the "Edit" button at the top of the issue reference screen.

Popup the issue edit screen by clicking the edit button at the top of the reference screen.

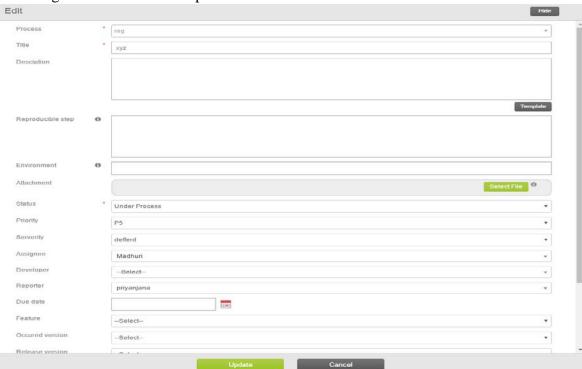


(B) Click the edit menu on the issue list screen.

Please select the edit item from the drop-down menu shown by clicking the function icon in the ID column. It is also possible to pop up the edit screen from the top of issue list screen.



- (2) Input the content you'd like to update and press the register button to finish the registration on the issue edit screen.
 - * Making the comment is also possible on the issue edit screen.



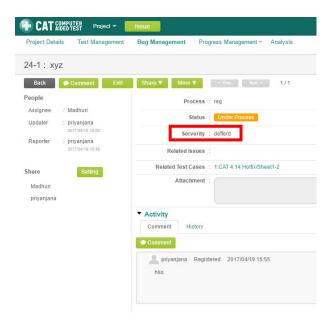
3.4.2 Edit from the Issue Reference Screen

(1) Double-click the item you'd like to edit and notice that those editable items' background will turn to yellow when mousing over it.

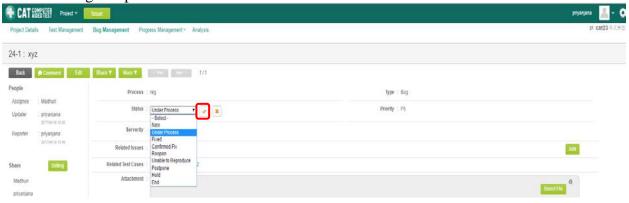
*Issue type is basically immutable, which can only be modified when moving it to the other location.

The notification email will not be sent if those items except the comment are modified.

If notification is essential, please utilize the comment function.



(2) Do the editing and press the check button to finish it.

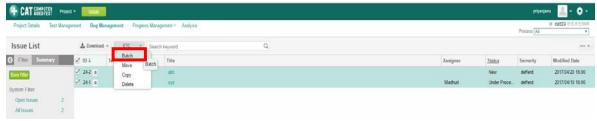


3.4.3 Edit in Batch

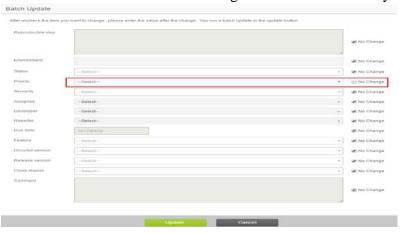
(1) Click the check box of those issues you'd like to edit and the "ETC" button will appear after that.



(2) Select the "batch" item in the dropdown list shown after pressing the ETC button.



(3) Unclick the check box of "No Change" item of those items you'd like to edit and input the date.



(4) Press the update button after editing all items you'd like to update.



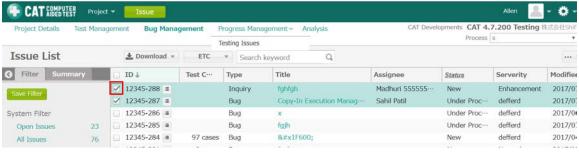
(5) A popup for confirmation will appear after the previous step, please press OK button to finish the batch updating and notice that the whole process can't be undone after it.



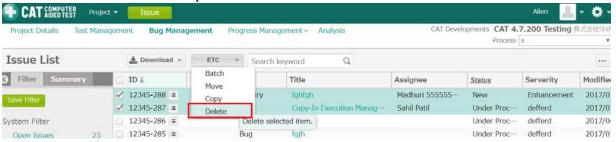
3.5 Delete an Issue

This section illustrates steps to delete the issue.

(1) Click one of more than one issue you'd like to delete and then the ETC button will appear.



(2) Press "Delete" in the ETC drop down the list.



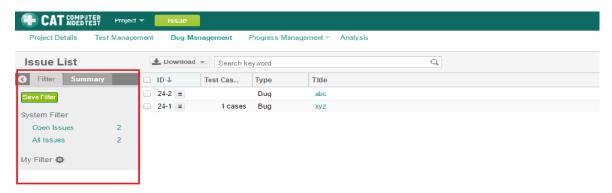
(3) The confirmation popup will appear and please press OK if everything is ok.



X Once the issue is deleted it can't be restored.

3.6 Utilize My Filter

This section illustrates the function of My Filter in which can be used anytime with settings saved. There are "System Filter" and "My Filter" displayed in the filter panel on the top of the issue management screen.



System Filter.

Following 2 filters will be prepared in which you can apply either one of them by clicking the menu.

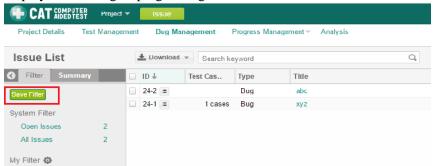
- Open Issues: Only those open issues will be displayed here.
- All Issues: All registered issues will be displayed.
- My filter.

It's possible to utilize the filter created either by you or other users, please refer to following illustrations for creating or editing My Filter.

- 1 How to create a filter:
- (1) Press the "Save" button of the filter

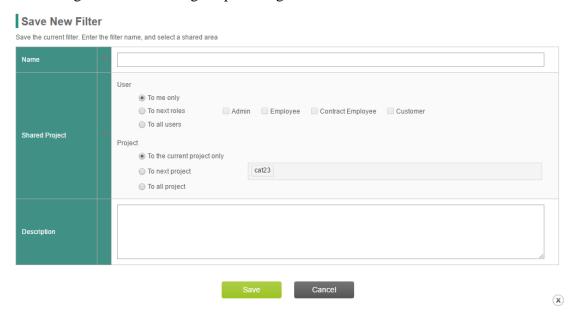
Prepare the display setting you'd like to save and press the "Save Filter" on the upper left side of the screen to save current settings.

* Current settings refer to settings related to display/hide the column and the filter, sorting, width, display order and grouping settings for each column.



(2) Input filter settings.

Input the filter name, share settings and filter summary and press "Save" button to complete these settings in which sharing scope configuration will be based on.



[Filter sharing setting]

Setting	Description
Name	Please input any name for the file.
Shared Project (User)	Please input a user with authority to utilize the filter. X Administrator authority is required for utilizing this function in which can't be accessed by the user with other authorities.
Shared Project (Project)	The filter can be utilized in the assigned scope.
Description	Please inputted the filter description.

(3) Please press the save button to complete setting the filter in which will be shown in the MyFilter item.

2. Manage and edit the filter

Open the My Filter management screen by clicking the gear icon in the item list in which the user can select or edit the filter.



There are three ways for editing My Filter as below.

- Choose a filter to be displayed in the filter list.
- Delete the filter created by yourself (Administrator can delete all filters).
- Change the target that the filter is sharing with.



[Filter edit items]

Item	Description
Choice	You can choose to show/hide the filter. If you want to use a shared filter, check its checkbox and press the Save button.
Filter name	When you select a filter name, it transits to the edit page of that filter.
Туре	Personal filter: It is a non-shared filter.
	Shared filter: It is a filter shared with other members.
Description	The summary of the filter is displayed.
Delete	Delete the filter. For shared filters, other members will not be able to use that filter

3. Save My Filter

Press the save button shown by moving the cursor on the MyFilter title to update current filter settings to the filter.



3.7 Display the Issue Summary

This section illustrates the way to display the summary. Please click the summary tab on the left panel of the top screen.



There are four items in the drop-down list of the summary tab: Person in Charge, Severity, Priority, and Developer, in which display opening and closed issues. Besides, the user can easily show the issue list in the tab by clicking the number corresponding to the category.



*Those items which are not selected in the setting of the current project will not be displayed in the manual.

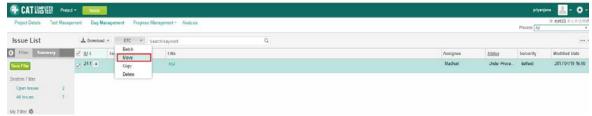
3.8 Move and Copy the Issue

In this section, we will illustrate how to move and copy the issue.

3.8.1 Move the Issue and Change the Type

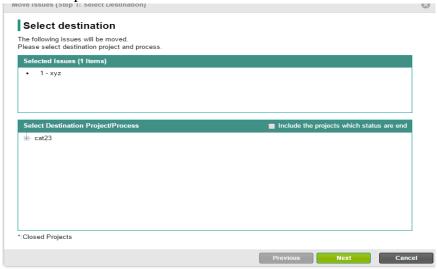
Here we illustrate how to move the issue. Besides moving the issue to the process in any project, the issue type can also be adjusted.

(1) Select those issues to be moved by setting their check box on and press the move item in the dropdown list shown by pressing the "ETC" button.



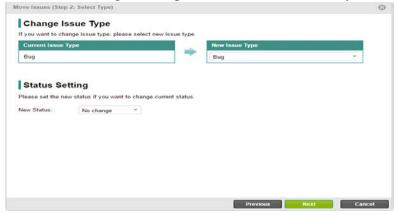
* Those issues with different types can't be moved at once, which have to be handled individually together with those shared the same type.

(2) Select the target project and the process that you would like to move the issue on the wizard screen and press the "next" button.



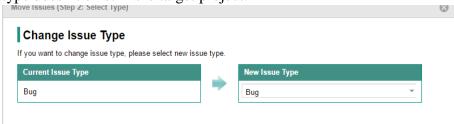
* It's not possible to move the issue to the project in other services.

(3) The type and the status will be selected at the beginning and the new settings can be applied before the moving. Please press the next button after you finish new settings.

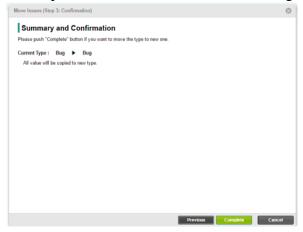


(4) Input data to those required items.

It is necessary to set up new values if these is a required field in the target type or the original type doesn't exist in the target project.



(5) Please press the next button to finish moving the issue after confirming contents.



3.8.2 Copy the Issue

This session illustrates a way to copy the issue.

(1) Select those issues to be copied by setting their check box on and press the copy item in the dropdown list shown by pressing the "ETC" button.



(2) Input the new title for each issue on the screen for issue copying shown by pressing the copy button to finish the issue copying.



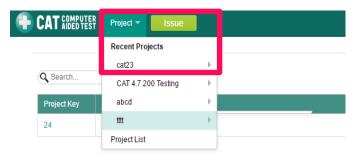
* It's possible to copy an issue to the other process in the current project.

Chapter 4 Progress Management

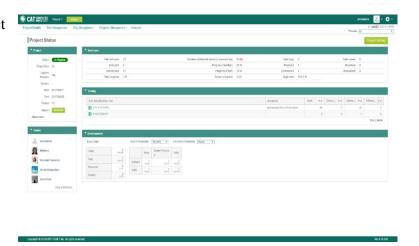
4.1 Check the Project Summary

The procedure for confirming the project summary is as below.

(1) Expand the list of projects you would like to check in from the header project overview.



(2) It's possible to check the project summary, team members, progress summary, testing status and development status on project details screen.



Item	Description
Project	It shows the current project status and summary or the current process.
Team	Here you can check all members in the current project.
Summary	It displays the number of test cases and issues.
Testing	Here we can see the test suites and related members in which the user can view by adjusting display settings.
Development	It displays the issue status in which can be viewed in different ways by switching the display settings of columns and rows to show the scattering of the severity and priority.

^{* &}quot;Pending" is not included in the executed cases.

4.2 Check the Overall Test Progress

Overall test progress is the overall progress of the testing, in which can be checked by either the graph or the table.

4.2.1 Check the Overall Progress with the Graph

The procedure for checking the overall test progress on the graph is as below.

(1) Select "Progress Summary" from the upper menu.



(2) The progress of the current test process will be shown in the graph (I will be shown in the table displayed below the graph also).



There are 2 types of graph that the user can choose from.



Line : The testing result will be accumulated to the line graph as the testing going on.

Stacked Column Chart : The testing result will be accumulated to the bar graph as the testing going on.

Besides, since it's possible to switch display settings for test suites, users, and their display format, it's possible to do the analysis with the graph.

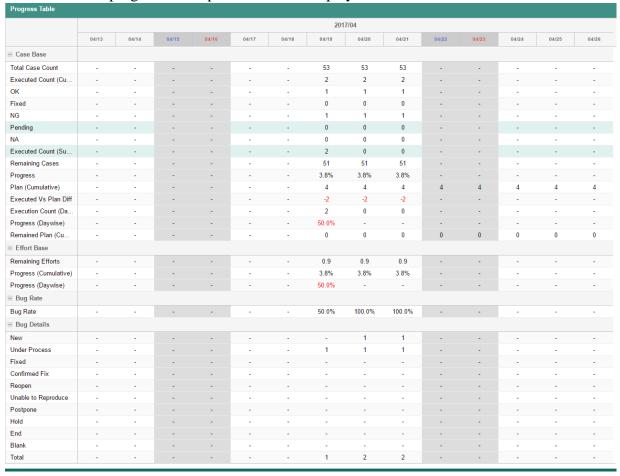
4.2.2 Check the Overall Progress with the Table-1

The procedure for checking the overall progress of the test in the table is as follows.

(1) Select "Progress Summary" from the upper menu.



(2) The current test progress in the process will be displayed in the table below.



The overall progress table can be divided into two parts: "Case base" and "Bug Details". Please refer to the following table for the exact meaning of each item.

Item	Description
Total Cases Count	Displays the number of all test cases in the selected process.
Executed Count	Displays the accumulated executed number calculated by
(Cumulative) * 1	subtracting the remaining cases from the total cases.
OK *1	Displays the accumulated OK count.
Fixed * 1	Displays the accumulated Fixed count.
NG * 1	Displays the accumulated NG count.
Pending * 1	Displays the accumulated Pending count.
Not Applicable (NA) * 1	Displays the accumulated NA count.
Executed Count (Sub Total)	Displays the number of executed test in the time unit.
Remaining Cases	Displays the number of unexecuted cases.
Progress * 2	Displays (Executed number / total case count)%.
Plan (Cumulative) * 2	Displays the number of accumulated planned cases entered.
Executed Vs Plan Diff * 1	Displays the accumulated total of "Executed - planned number" in a time unit, which will be in red if it's negative.
Execution Count (Daywise)	Display the accumulated executed count of the day in the
Execution Count (time unit)	time unit.
Progress (Daywise)	Displays (Accumulated executed count of the day / Planned
Progress (time unit)	Cases of the day)% and (Accumulated executed count during the time unit period / Planned Cases during the time unit
	period)%.
	The number will be in red if it's less than 100%. However, only
	the last time will be displayed in red if the current time is in the display time.

^{* 1} If the check box of the display setting's cumulative option is on, it displays data from its own start time and from target process's start time if the checkbox is off.

^{* 2} The number will be displayed from target process's start day it will not be affected by the display setting.

Please refer to the following table for the meaning of each work-hour related column.

* The user with customer authority is not allowed to view work-hour based items.

Item	Description	
Required working hours (H)	Displays the number of required working hours to finish all test cases based on the originally scheduled input information.	
Progress (cumulative)	The progress rate is displayed by multiplying the time required to execute one case by the number of cases digested and the number of planned cases. By doing this, you can refer to the progress rate weighted.	
	Example: There are 10 unexecuted cases and 5 mins are required for executing each one. There are 50 executed cases and 1 min is essential for executing each one of them. Schedule: $5 \text{ mins} \times 10 \text{ cases} + 1 \text{ min} \times 50 \text{ cases} = 100 \text{ mins}$ Achievement: $1 \text{ min} \times 50 \text{ cases} = 50 \text{ min}$ Progress rate: $50 \text{ mins} / 100 \text{ mins} = 50.0\%$	
Progress (Cumulative)	The progress rate will be calculated based on above logic with today or displayed time unite as its time frame.	
Progress (Daywise)	The number will be in red if it's less than 100%. However, only the last time will be displayed in red if the current time is in the display time.	

Please refer to following items for the meaning of the bug rate related item.

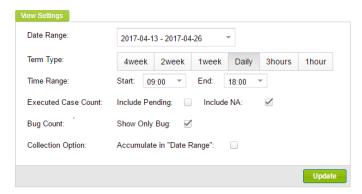
Item	Description
Bug Rate	Displays the bug rated calculated as below.
	Bug rate = (Total Bug counts) / (cumulated executed test cases) * 100

Please refer to the following table for the meaning of each bug related status. The status displayed will be different if the user changed it.

Status	Description
New	Used when an issue is registered.
Under Process	The person in charge is dealing with the issue.
Fixed	The issue was fixed.
Confirmed Fix	Confirmation of the fixed issue.
Resumption	The fix was not finished properly.
Unable to Reproduce	Not being able to reappear the bug.
Postpone	Used when the user decided to postpone the issue to the next version.
Hold	Used when for the issue being hold.
End	Used for the issue which was over.

4.2.3 Check the Overall Progress with the Table-2

It's possible to check more detailed progress by setting the date range and term type shown by pressing the "view settings" button.

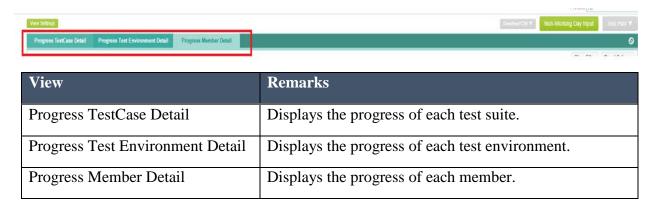


Please refer to setting items in the following table.

Item	Description
Date Range	Selects the period to be displayed on the graph such as "entire process", "today", "last 5 days", "last week", "last nine days", "last two weeks", "last month" and "custom". The user can set up the customized period in by selecting the date in the calendar, which's initial value is the process period.
Term Type	The user can switch between "4 weeks", "2 weeks", "1 week", "Daily", "3 hours" and "1 hour".
Time Range	Specify the time range to be displayed, which's initial value is the same as the work time of the project.
Executed Case Count	Sets whether to exclude those executed cases with "Hold" or "NA" (Not Applicable) as the statue.
Bug Count	Sets whether to count those issues with a bug as its type.
Collection Option	Sets whether to calculate the cumulative number within the display period range. The user can check the difference of the days before the start day, please set the check box on if you'd like to check the progress after the specific day.

4.3 Check the Test Progress Detail

It's possible to check the test progress in detail and toggle between the three tabs: Progress Test Case Detail, Progress Test Environment Detail and Progress Member Detail. Many detailed illustrations about the view will be included in this section.



4.3.1 Review the Progress of each Test Suite

The procedure for checking the progress of each test specification is as follows.

(1) Select "Progress Detail" from the upper menu.



(2) Click "Progress TestCase Detail" from the upper tabs.



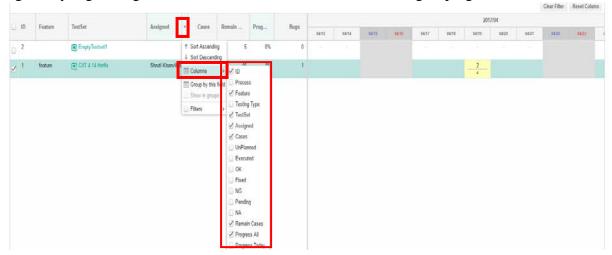
(3) The test progress status of each test suite will be displayed.



(4) It's possible to check the bug ID, title, and status related to the test suite by mousing over the bug number or unsolved issue number which is higher than 1.



(5) Following items can be displayed by clicking the "Column" item on the menu shown by pressing ▼ icon appeared by mousing over the title of the column header. It's possible to check the test progress by organizing the items with functions such as filter and grouping.



[Item List]

Item	Description	
ID	The ID of the test suite.	
Process	The process that the test suite registered to (Will be displayed individually when showing all processes).	
Feature	Functions (*) registered to the test suite.	
Testing Type	The Testing Type (*) registered to the test suite.	
TestSet	The name of the test suite.	
Assigned	The user assigned to the test suite from the test plan input.	
Cases	The number of the test cases in the test suite.	
UnPlanned	The number of test cases to be scheduled.	
Executed	The amount of executed test cases, the setting can be adjusted from the view setting.	
OK · Fixed · NG · Pending · NA	The amount of each status.	
Remain Cases	Test cases left to be executed.	
Progress All	The ratio of executed cases to the total cases in the test suite. (executed count ÷ total case count)	
Progress Today	The ratio of executed cases to the total cases in the test suite today (executed count today ÷ scheduled test cases today).	
Remain Days	Scheduled test cases to be executed.	
Speed (minutes / per case)	The required time for executing a scheduled test case registered.	
Start date	The start day of the test suite registered through "Test Plan Input".	
End date	The end day of the test suite registered through "Test Plan Input".	
Bugs	The amount number of bugs linked to the cases in the test suite.	
Unresolved Bugs	The amount number of unsolved bugs (which's status is not "End") linked to the cases in the test suite.	
Other custom fields (*)	Displays the customized field (*) registered in the test suite.	

^{*} Register on the test management screen by configuring service settings.

(6) Please click Download CSV (All) or CSV download (Filtered) item in the Download CSV drop-down menu to download the progress status.



4.3.2 Check the Test Progress of each Test Environment

You can use it by registering the test environment for the execution result column of the test specification. The procedure for checking the progress of each test environment is as follows.

- * It is necessary to register the test environment according to the procedure of "CAT User Manual User's Guide".
- (1) Select "Progress Detail" from the upper menu.



(2) Select "Progress Test Environment Details" from the upper tab.



(3) The progress status for each test environment is displayed. Execution results for which the test environment is not set are counted as blanks on the last line.



(4) To download the progress status Click Download CSV (All) or Download CSV (Filtered) in Download CSV dropdown list.



4.3.3 Check the Progress of each Member

The procedure for checking the progress of each member is as follows.

- * Users with customer authority cannot view the progress of each member.
- (1) Select "Progress Detail" from the upper menu.



(2) Select "Progress Member Detail" from the upper tabs.



(3) The test progress of each member will be displayed.



(4) To download the progress status Click Download CSV (All) or Download CSV (Filtered) in Download CSV dropdown list.



4.4 Manage Testing Issues

The user can manage the testing based on the affected working hours caused by the testing issues. Locking the test suite related to the testing issue to stop the test execution is also possible.

4.4.1 Register a Testing Issue

The procedure for registering the test assignment is as follows.

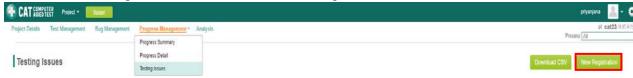
(1) Press the "Testing Issue Register" button on the test execution management screen.



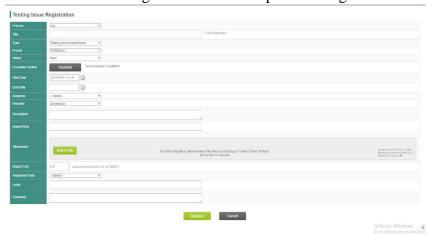
* Expands the drop-down list from the progress management in the upper menu.



Press the "New Registration" button on the "Testing Issue" screen.



(2) Enter the test issue registration item and press the register button.



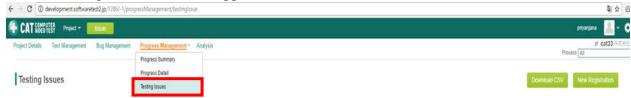
The input items are as below.

Item	Description	
Process	Select the process you'd like to register to.	
Title	Enter the title of the testing issue.	
Туре	Select the testing issue type from following four types available. Testing environment issue / Development delay / Change request / Poor quality / Lack of member / Lack of skill * Users with customer authority cannot view testing issues related to "Lack of member" or "Lack of skill".	
Priority	Select the priority.	
Status	Select the current status.	
Execution control	When the execution control is on, it's possible to stop the test execution related to the test suite specified in the range affected. It's possible to avoid the unnecessary test execution with test execution control when it's not appropriate to do the testing due to some issues such as insufficient test environment.	
Start Date	Select the date that the testing issue occurred.	
End Date	Select the date that the testing issue ended.	
Assignee	Select a person in charge from team members.	
Reporter	Select a reporter from team members.	
Description	Enter the summary of the testing issue.	
Impact Area	Select the test suite that might be affected. * Selecting multiple test suites linked to the process is possible.	
Attachment	Attach the data for reference.	
Impact Cost	The working hours affected.	
Adjustment Task	Select the adjustment task from the dropdown list that includes options: No impact on schedule / Overwork / Working on holiday / Adding new members / Rescheduling / Testing by development team	
Label	Set a label to the testing issue.	
Comment	Enter any comment.	

4.4.2 Check the Testing Issue

Following are steps for checking the testing issue.

(1) Select "Testing Issues" from the upper menu.



(2) Select the Testing Issue title you'd like to check.



(3) Displays testing issue details on the screen.



There are other ways to get to testing issue detail screen as below:

- Editing testing issue.
- Display, register or delete the comment.
- Show the history.

Chapter 5. Analyze the Project

Please select "Analysis" on the upper menu to view the project's or members' analysis result on the analysis screen.



5.1 Analyze the Project Quality

It's possible to view the project analysis result by selecting the project in the upper side.



5.1.1 View the Testing Status

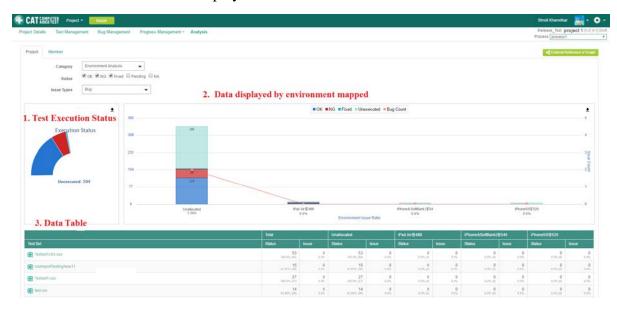
It's possible to understand the situation in each environment of different kinds by using "testing suite vs test environment" to analyze testing status.

- # It's required to link the test environment setting with the test execution result column so that you can do the test environment analysis. Otherwise, the test case will be categorized to "Not Allocated".
- * It's possible to link the test environment to the test execution result column in the test case management.

It's possible to select the test environment from the category section after clicking the project tab on the analysis screen.



The screen as below will be displayed.



- ① Test execution status half doughnut chart.

 The test execution status can be shown in the half doughnut chart, which shows a complete half circle if all test cases were executed and displayed test type (OK, NG, Fixed, Pending, and NA) can be adjusted.
- ② Test execution status in each test environment cumulative bar chart, line graph and composite graph.

 Test execution status in each test environment can be shown in the cumulative bar chart, which's test case numbers are ordered in descending order from the left. It's also possible to show the unexecuted test case amount, which's initial setting is OFF. The Line graph shows the number of issues in each test environment.

 The ratio at the bottom of the horizontal axis is the issue occurrence rate and the number of the type for each issue/status of the test environment can be displayed. For example, the ratio will be calculated by [(bugs amount) / (OK + NG + Fixed status test cases)] if the user chooses status: OK, NG and Fixed and Bug as the issue type.
- ② Data Table Please refer to each figure defined in the matrix with test suite as the vertical axis and test environment as the horizontal axis.



Item	Remarks
1. Number of Executed Test Cases	The count of those cases with selected status will be counted.
2. Number of issues	The count of those issues with selected types
3. Executed Test Cases / All Test Cases	The case number will be displayed in the parentheses.
4. Number of Issues / Executed Test Cases	-

The order of the horizontal axis environment is the same as the bar chart of ②.

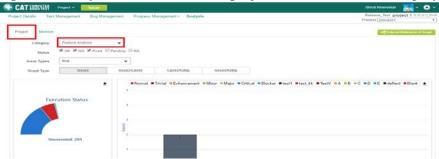
The total will be the sum of both vertical and horizontal axis. However, those duplicated counts will be excluded from the issue number since it's possible that an issue can be linked with many different test cases.

5.1.2 View the Situation that Causes the Issue

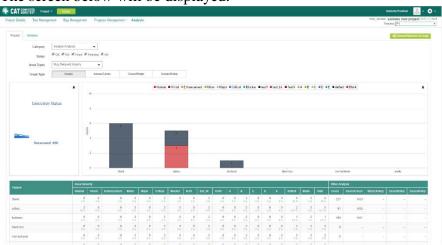
The user could analyze the project quality with following four items. Those issue without feature settings will be counted as "Blank".

- Issue amount
- Issues amount / Test cases amount
- Test cases amount / Kstep
- Issues amount / Kstep
- * It is required to register Kstep number for each function in advance. Please refer to "CAT User Manual Applications -" for details about the registration.

Open the analysis screen, select the project tab, and select a category.



The screen below will be displayed.



Also, those issues displayed can be narrowed down further by selecting Issue Types.



5.2 Analyze Members' Quality of Testing

It's possible to view the issue amount and the severity of each developer in the project on the screen shown by clicking the member tab in the upper menu. Those assigned issues are in charged by the developer. Those issues without the assignee will be counted into "Blank".



In the table at the bottom of the page, the user can check the issue amount with its severity and the resumption amount. The resumption amount refers to the count of how many times an issue was changed to the "Resumption" status.



Also, it's possible to view and analyze the executed test cases amount and issues registered of each test executor by choosing the test view point in the category drop-down list. The targets of aggregation are those users who register the issue.



The user can view the issues amount of Bug and Requests by making the selection in the Issue Types drop-down menu.