



GUIDELINE

DMS User Manual

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1 INTRODUCTION

1.1 Purpose

The goal of this document is to guide project team to understand about defect information, logging, monitoring and measuring defects using Defect Management System.

1.2 Reference

No	Code	Name of documents
1	07e-HD/PM/HDCV/FSOFT	Guideline_Software testing
2	08e-HD/PM/HDCV/FSOFT	Guideline_Software metrics
3	08e-BM/PM/HDCV/FSOFT	Template_Project database

1.3 Definitions, acronyms and abbreviations

Abbreviations/ Acronyms	Expansion	Note
DMS	Defect Management System	
QC	Quality Control	
QA	Quality Assurance	
Wdef	Weighted defect	
UCP	Use-case point	To measure project size
PM	Project Manger	
PTL	Project Technical Leader	
Model	Defect model, defect workflow	

2 DEFECT MANAGEMENT

This section gives an explanation of how to use DMS system. All Screenshots are accompanied by an explanation of the screens functionality. Where applicable a path is provided showing how the screen can be reached within the program if needed.

2.1 Login/Logout

2.1.1 Login

Path: the first screen



To access DMS, enter the user name and the password, once these have been entered click on the “Login” button.

If the wrong user name or password is entered, DMS will display a warning message:

Please check the username/password combination

You need to re-check your user name and password and re-type in the these textboxes above

2.1.2 Logout

Path: click “Logout” from the header menu



2.2 Manage query

2.2.1 View (Homepage)

Path: Login defaults to this screen

Defect Management System

Home Defect Management FMS Logout Help

Home Page User: Le Lan Phuong - G10 - Tester Date: 05-Mar-08 Status: On-going Project: DMS2

Fixed Queries

- All Defects
- All Open Defects
- All Leakage Defects

Public Queries

- All error defects

Private Queries

- Assigned to = BaHX

Add New Query Delete

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Clicks on the query name that you want to view, includes fixed queries, public queries and private queries.

Note:

There are some pre-defined fixed queries:

- All defects: list all defects of the project
- All Open defects: list all defects which has the status in (Error, Assigned, Fixing, Corrected) of the project
- All leakage defects: list all defects which have the status differ from “Cancel” and the QC Activity in (After Release Test / After Release Review / Acceptance Test)

2.2.2 Add query

Path: click on button Add New Query from the Homepage

Query Name * Defects assigned to ThoNT ☐ Private Query ☐ Public Query ☐ Fixed Query

Field Name	Criteria	Value	Logical	Group
Assigned to	=	THONT	AND	Group 1
	=		AND	Group 1
	=		AND	Group 1
	=		AND	Group 1
	=		AND	Group 1
	=		AND	Group 1
	=		AND	Group 1
	=		AND	Group 1
	=		AND	Group 1
	=		AND	Group 1
	=		AND	Group 1

Save Cancel

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Enter the query's information in each field; note that the query name is mandatory for the query then click on the "Save"

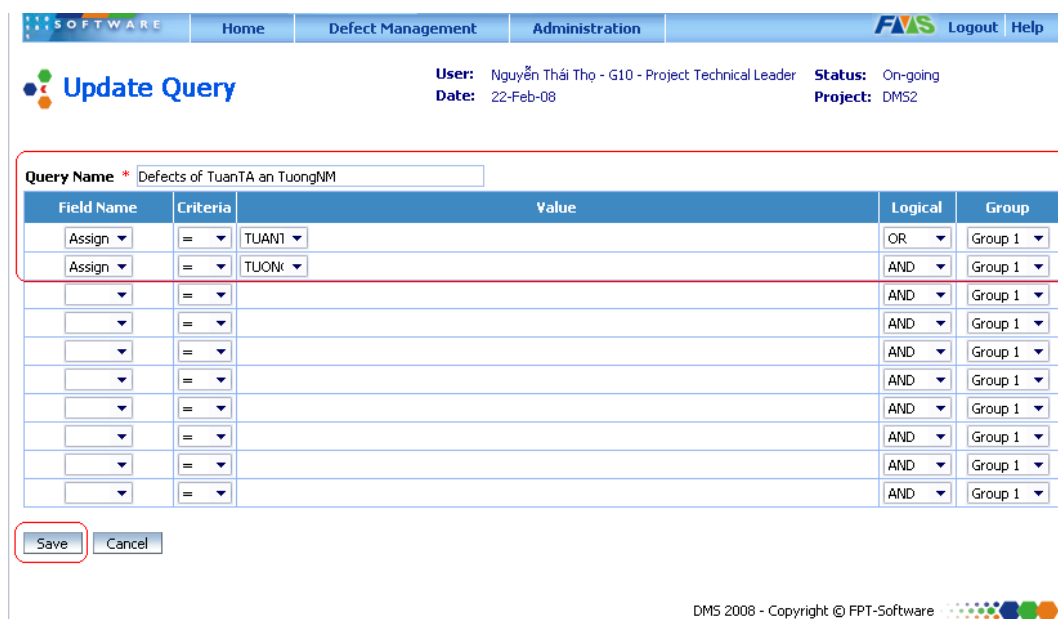
Note:

- Normal user can add only private query
- PM can add private and public query
- Only DMS Admin can add fixed query

2.2.3 Update query

Path: click on icon  Update Query from the Homepage

Enter the new query's information in each field that you want to change then click on the "Save" to update the query information



Field Name	Criteria	Value	Logical	Group
Assign	=	TUANT	OR	Group 1
Assign	=	TUONK	AND	Group 1
	=		AND	Group 1
	=		AND	Group 1
	=		AND	Group 1
	=		AND	Group 1
	=		AND	Group 1
	=		AND	Group 1
	=		AND	Group 1
	=		AND	Group 1

Note:

- Normal user can update private query
- PM can update private and public query
- Only DMS Admin can update fixed query

2.2.4 Delete query

Path: Login defaults to this screen

From the Homepage screen, select query (queries) by checking on the check box (boxes) then click on button “Delete”

Defect Management System

Home Defect Management Logout Help

Home Page

User: Le Lan Phuong - G10 - Tester
Date: 05-Mar-08

Status: On-going
Project: DMS2

Fixed Queries	
<input type="checkbox"/>	All Defects
<input type="checkbox"/>	All Open Defects
<input type="checkbox"/>	All Leakage Defects

Public Queries	
<input type="checkbox"/>	All error defects

Private Queries	
<input checked="" type="checkbox"/>	Assigned to = BaHX

Add New Query Delete

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Note:

- Normal Defects user can delete his/her private queries
- PM can delete private and public queries
- Only DMS Admin can delete fixed queries

2.3 Manage defect

2.3.1 Defect List

*Path: Click on a query from the Homepage or from the menu **Defect Management/ All Defects***

Defect List

User: Nguy?n Thái Th? - G10 - Developer
Date: 06-Mar-08

Status: On-going
Project: DMS2

Assigned to: (All) Status: (All) QC Activity: (All)
Created by: (All) Severity: (All) Product: (All) + Advanced Filter

Search

Result 1 - 20 of 757 defects in 38 pages

Defect ID	#	Title	Test Case ID	Severity	Priority	Status	Assigned to	Created by	Fixed Date	Deadline	Owner
10000670	0	Test Synch Test Test Test	Test Synch Synch	Cosmetic	Low	Assigned	DUNGCT	HUYNT		06-Mar-08	BAHX
10000668	1	Xám - Test sync Data	DMS_BU_001	Cosmetic	High	Assigned	THONT	THONT			THONT
10000667	0	Hồng	DMS_BU_001	Cosmetic	High	Assigned	TUANTA	TUANTA			TUANTA
10000666	0	Trám		Medium	High	Error	TUANTA	TUANTA			TUANTA
10000665	0	Làm		Serious	High	Error	TUANTA	TUANTA			TUANTA
10000664	0	Lục		Fatal	High	Assigned	TUANTA	TUANTA			TUANTA
10000663	0	Trắng		Cosmetic	High	Error	TUANTA	TUANTA			TUANTA
10000662	0	Đen		Cosmetic	High	Error	TUANTA	TUANTA			TUANTA
10000661	0	Nâu		Cosmetic	High	Error	TUANTA	TUANTA			TUANTA
10000660	0	Vàng		Cosmetic	High	Assigned	TUANTA	TUANTA			TUANTA
10000659	0	Tím		Medium	High	Assigned	TUANTA	TUANTA			TUANTA
10000658	0	Đỏ		Serious	High	Error	TUANTA	TUANTA			TUANTA

After selected a query from the Homepage or from the header menu, a list of defects matching the previously chosen query criteria with the necessary information is displayed.

Search defects by criteria:

If user selected fixed query, user could filter result based on some criteria, he can use criteria filters. There are two kinds of filter:

- *Simple filter* : to search defects by the most popular criteria

Assigned to: TUONGNM Status: Assigned QC Activity: Integration test
Created by: THINHHT1 Severity: Serious Module: DMS2_DDD_DefectManagement_v1.1 + Advanced Filter

- *Advanced filter*: to search defect by all criteria

Assigned to: TUONGNM Status: Assigned QC Activity: Integration test
Created by: THINHHT1 Severity: Serious Module: DMS2_DDD_DefectManagement_v1.1
Defect Owner: (All) Defect Origin: (All) Work Product: (All) Type: Business logic
Created from: Created to: Fixed from: Fixed to: Restriction: (All)
(Date Format: dd-MMM-yy) - Simple Filter

Search

Result 1 - 3 of 3 defects in 1 pages

Defect ID	#	Title	Testcase ID	Severity	Priority	Status	Assigned to	Created by	Fixed Date	Deadline	Owner
432334	0	[DD_Query Management] Requirement ch?a clear v? ph?n check existedTitle		Medium	High	Closed	TUONGNM	THINHHT1	08-Jan-08	08-Jan-08	TUANTA
432339	0	[DD_QueryManagement] Lack set data in UC_AddUpdateQuery_SQ_init		Medium	High	Cancelled	TUONGNM	THINHHT1		08-Jan-08	TUONGNM
432372	0	[DD_QueryManagement] Lack description about Role		Cosmetic	High	Closed	TUONGNM	THINHHT1	08-Jan-08	08-Jan-08	TUONGNM



Simple filter is displayed by default so if user can click on the link [+ Advanced Filter](#) from the simple filter to get advanced filter.

To search defect by criteria, enter the necessary information then click the button “Search” to view the result.


2.3.2 View defect detail

Path:

- Click on the link defected from the list defects screen

	Defect ID	#	Title	Test Case ID	Severity	Priority	Status	Assigned to	Created by	Fixed Date	Deadline	Owner
	10000449	0	3333333	333333	Medium	High	Assigned	THONT	TUANTA		04-Mar-08	TUANTA
	10000448	0	English only	eeeeeeeee	Medium	High	Assigned	THONT	TUANTA		04-Mar-08	TUANTA

After selected a defected from the list defects screen, the defect detail screen matching the previously chosen defect with the necessary information is displayed:


Defect Detail

User: Le Lan Phuong - G10 - Tester
Date: 05-Mar-08

Status: On-going
Project: DMS2

Defect ID	10000448	Severity	Medium	QC Activity	Document review
Created by	TUANTA	Priority	High	Defect Origin	Coding
Defect Owner	TUANTA	Created Date	04-Mar-08	Product Type	Coding convention
Assigned to	THONT	Deadline	04-Mar-08	Product	Type
Status	Assigned	Fixed Date		Type	Business logic
		Closed Date		Test Case ID	eeeeeeeee

Title English only
 eeee

Description

Cause Analysis

Corrective Action

Translation Status Not translated

Defect List Update Add New Clone Export

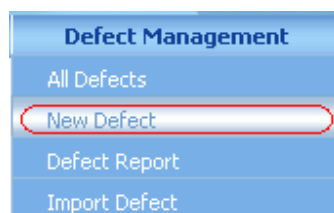
Discussion
 Defect History
 Attachments

Add discussion, view defect history: refer to [section 2.3.5](#)

2.3.3 Add defect (Log defect)

Path:

- Click on menu Defect Management/ New Defect:



- Click on the button “Add New” from the list defect screen or defect detail screen

Add New

To create a defect, enter the defect's information in each of the defect fields

Address: http://g10-server:8085/dms-web/addDefect.html

Defect Management System

Home Defect Management Administration Logout Help

Add Defect User: Nguyễn Thái Thọ - G10 - Project Technical Leader Status: On-going
Date: 22-Feb-08 Project: DMS2

Created by: THONT Severity: Medium QC Activity:
Defect Owner: Priority: High Defect Origin:
Assigned to: Type: Product Type:
Restriction: ☒ Internal ☐ External Created Date: 22-Feb-08 Product:
Deadline: 22-Feb-08 Test Case ID:
Title:
Description:
Causal Analysis: Corrective Action:
Defect List Save **Attach file**

Note that all the fields with the icon * are mandatory. User must fill at least these fields for a new defect.

Attach files to defect (optional):

- Click on the button “Attach file”, the attachment screen will be display:

Address: http://g10-server:8085/dms-web/defectAttachFile.html

Defect Management System

Home Defect Management Administration Logout Help

Attach Files User: Nguyễn Thái Thọ - G10 - Project Technical Leader Status: On-going
Date: 22-Feb-08 Project: DMS2

File	Path	Description
File 1	C:\Documents and Settings\tuongnm\Desktop\Defect_SystemSetting.txt	
File 2	C:\Documents and Settings\tuongnm\Desktop\Kill kavo.txt	
File 3		
File 4		

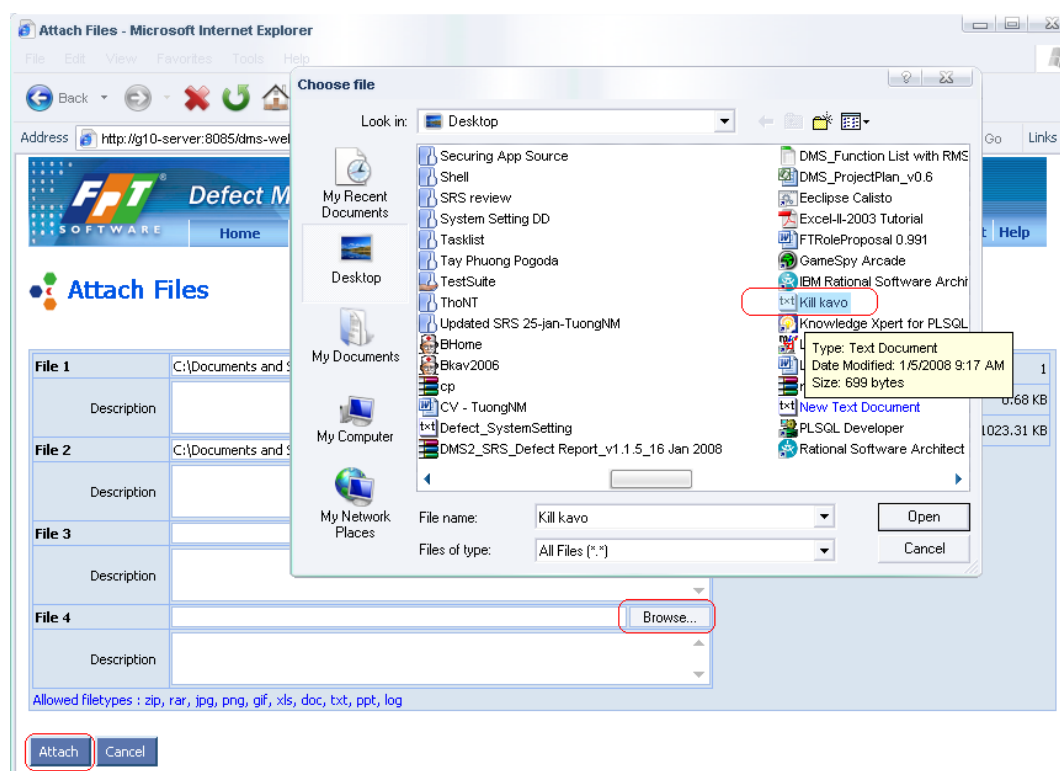
Allowed filetypes : zip, rar, jpg, png, gif, xls, doc, txt, ppt, log

Attach Cancel

Total Files: 1
Total Size: 0.68 KB
Available Space: 1023.31 KB

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- Click the button “Browse”. A file dialog box appears, select attached file then click the button “Attach” to attach the files to the selected defect:



After finished all these tasks above, click the button “Save” on the add defect screen. If all information is valid, the defect will be saved into database. Otherwise, an error message will be display to remind user to re-check and correct defect information.

For more information of defect description, please refer to section [Defect Description](#)

2.3.4 Clone Defect

Path: from the defect detail screen, click the button “Clone”:



The Add Defect screen will be displayed with corresponding field values are cloned from the Detail Defect screen (except Discussion, Attachment, and History), and they become enable to edit (refer to [add defect section](#) for reference):

Add Defect

User: Le Lan Phuong - G10 - Tester
Date: 05-Mar-08

Status: On-going
Project: DMS2

Created by	PHUONGLL	Severity *	Medium	QC Activity *	Document review
Defect Owner	TUANTA	Priority	High	Defect Origin *	Coding
Assigned to	THONT	Type *	Business logic	Product Type *	Coding convention
		Created Date *	04-Mar-08	Product	
		Deadline	04-Mar-08	Test Case ID	
Title * [2]English only					
Description *					
Cause Analysis			Corrective Action		
			Solution to fix this defect		

Save Defect List Attach file

2.3.5 Update defect

Path: Click on the Icon  from the list defect screen or “Update” button from the Defect Detail Screen

A screen with information of selected defect will be displayed for update. Enter the new defect's information in each field that you want to change:

SOFTWARE		Home	Defect Management	Administration	FMS Logout Help
----------	--	------	-------------------	----------------	-----------------

Update Defect

User: Nguyễn Thái Thọ - G10 - Project Technical Leader Status: On-going
Date: 23-Feb-08 Project: DMS2

Defect ID	377555	Severity *	Fatal	QC Activity *	After Release test
Created by *	BAHX	Priority	High	Defect Origin *	Test
Defect Owner	THUYTTT	Created Date *	11-Oct-07	Product Type *	Integration test case
Assigned to	QUANLA1	Deadline	13-Oct-07	Product	DMS2_Testcase_v1.0
Status *	Closed	Fixed Date	12-Oct-07	Type *	Document
Reason *		Closed Date	19-Feb-08	Test Case ID	Le Lan Phuong
Restriction	<input type="radio"/> Internal <input checked="" type="radio"/> External				
Title * Change - Test History ggg66					
Description * Many items are used Project Change management procedure but it is not define clearly. Suggestion: Can add item for this Change - Test History					
Causal Analysis			Corrective Action		
Did not mentioned Change - Test History			Add this section into Proposal Change - Test History		

Defect List Save Attach file

Discussion

Defect History

Attachments

Add discussion:

- User can add comments to the defect by click on the link “Discussion”:

Discussion

TUANTA (22-Feb-08 15:24:55)
Test

TUANTA (16-Feb-08 10:13:48)
xgxgx

THONT (12-Feb-08 14:44:08)
Test

Your Comment: I don't think the defect severity is Fatal, in fact, it is just cosmetic!

Type the comment in “Your comment” text field, and then click on the button “Add Comment”

View defect history:

- To view the history of defect, just click on the link “History”:

Defect History

Time	User	Field	Before change	After change
22-Feb-08 18:07:12	THONT	Update By	DUNGCT	THONT
22-Feb-08 15:59:40	TUONGNM	Assigned to	HIEUNK1	QUANLA1
22-Feb-08 15:59:40	TUONGNM	Test Case	Le Lan Phuong	Le Lan Phuongdddddddddd
22-Feb-08 13:08:33	TUONGNM	Defect Owner	DUNGCT	THUYTTT
22-Feb-08 13:08:33	TUONGNM	Update By	PHUONGLL	TUONGNM
22-Feb-08 10:10:18	PHUONGLL	Update By	THONT	PHUONGLL
19-Feb-08 17:02:50	THONT	Update By	BAHX	THONT
19-Feb-08 14:15:27	BAHX	Defect Priority	Low	High
19-Feb-08 14:13:43	BAHX	Assigned to	PHUONGLL	HIEUNK1
19-Feb-08 14:13:43	BAHX	Update By	THONT	BAHX

Delete Attachment:

- Just click on the icon  to delete the attached file

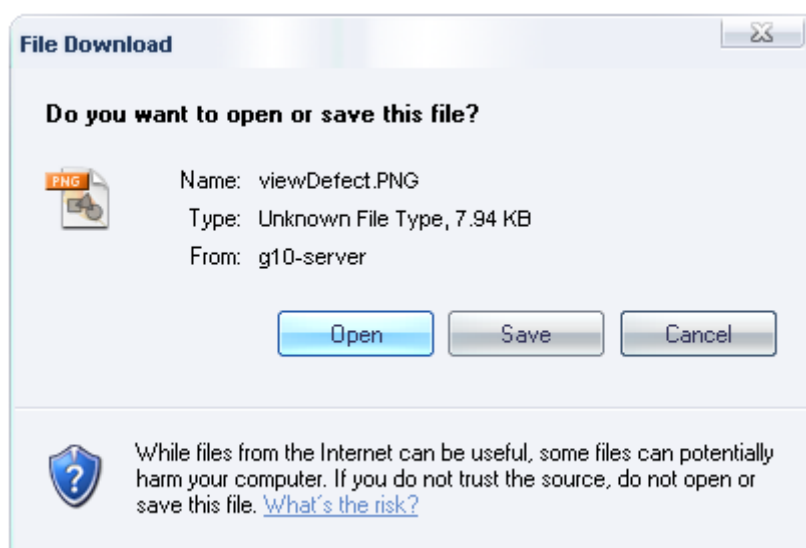
Attachments

#	File name	Creator	Date	Size	
1	attachment1.jpg	TuanTA	12-Nov-07	57.46 KB	
2	attachment2.jpg	TuanTA	12-Nov-07	57.46 KB	
3	attachment3.jpg	TuanTA	12-Nov-07	57.46 KB	
4	attachment4.jpg	TuanTA	12-Nov-07	57.46 KB	

Available Space: 213 KB

Open/Save attachment:

- Just click on the link file name of the attachment:



Click “Open” to open the selected attachment and “Save” to save attachment to your machine

Add more attach file:

- From the update defect screen, press the button “Attach file”: refer to section 3.3.2 for the detailed description

After finished all these tasks above, click the button “Save” on the update defect screen. If all information is valid, the defect will be saved into database. Otherwise, an error message will be display to remind user to re-check and correct defect information

2.3.6 Batch update

Path: From Defect List screen, select defects for updating and click “Batch Update” button

- The batch update screen will be display as below:

The screenshot shows the Defect List screen with the following filters: Assigned to: (All), Created by: THINHHTT1, Status: (All), Severity: Fatal, QC Activity: (All), Product: (All). A search bar is present. The results show 1 - 6 of 6 defects in 1 pages. The table below lists the defects:

	Defect ID	#	Title	Test Case ID	Severity	Priority	Status	Assigned to	Created by	Fixed Date	Deadline	Owner
<input type="checkbox"/>	10000174	0	Title		Fatal	Immediately	Error		THINHHTT1			
<input checked="" type="checkbox"/>	10000173	0	Title		Fatal	Immediately	Error		THINHHTT1			
<input checked="" type="checkbox"/>	10000086	0	Title		Fatal	Immediately	Error		THINHHTT1			
<input checked="" type="checkbox"/>	10000085	0	Title		Fatal	Immediately	Error		THINHHTT1			
<input type="checkbox"/>	10000071	0	Title		Fatal	Immediately	Error		THINHHTT1			
<input type="checkbox"/>	10000070	0	Title		Fatal	Immediately	Error		THINHHTT1			

At the bottom, there are buttons: Add New, Batch Update (highlighted with a red box), and Export. Below the buttons, the Project is set to NECE-PCS_Phase2 and there is a Move to Project button. The footer text reads: DMS 2008 - Copyright © FPT-Software.

- Change necessary fields of the selected defects then click the button “Batch Update”

2.3.7 Import defects

Path: Defect Management/Import defect



The import screen will be displayed:

Defect Management System

Home Defect Management Administration Logout Help

User: Le Lan Phuong - G10 - Tester Date: 24-May-07

Import Defect

Created by *	BAHX	File Name *	(Max file size: 256K)	Browse...
Template Type	Full Template	Download Template File		Import

Copyright by FPT-Software

To import defects into system, follow these steps bellows:

- Select template type from combo box **Template Type** Full Template
- Download defect template file (.xls) by click on the link **Download Template File** then fill appropriate information of defects in the template file

File Download

Do you want to open or save this file?

Name: Template_Defect log.xls
Type: Microsoft Excel Worksheet, 72.5 KB
From: D:\Prototype\WebContent

Open Save Cancel

☒ Always ask before opening this type of file

While files from the Internet can be useful, some files can potentially harm your computer. If you do not trust the source, do not open or save this file. [What's the risk?](#)

Created by * BAHX File Name * (Max file size: 256K) Browse...

Template Type Full Template Download Template File Import

Copyright by FPT-Software

- Use the button **Browse...** to select the imported defect file
- Click the button **Import** to import defects from file to database

Note

- All imported defects will have the status **Error** if value of assign to field is blank or **Assigned if value of assign to field is not blank and valid.**

2.3.8 Export Defects

Path: From the list defects screen, click the button “Export”:



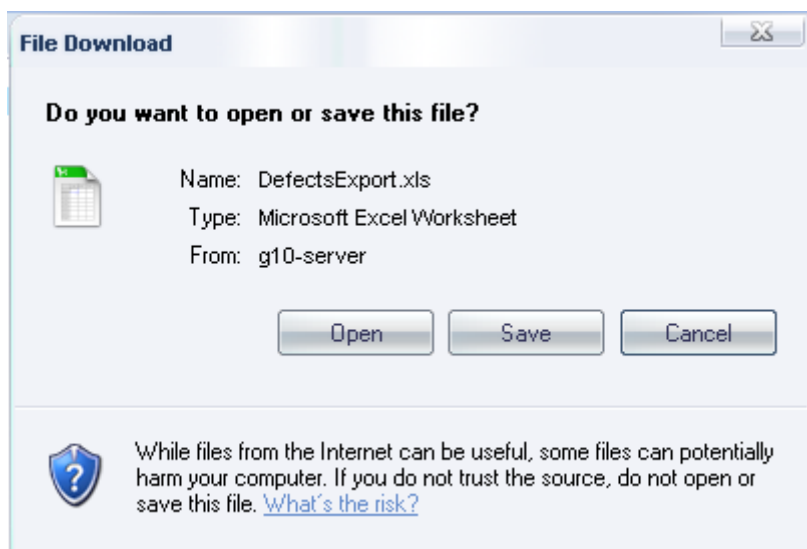
The export defects screen will be display:

The screenshot shows the 'Export' interface. On the left, the 'Source List' contains fields like 'Assigned to', 'Cause Analysis', 'Closed Date', 'Corrective Action', 'Created by', 'Deadline', 'Defect Owner', 'Fixed Date', 'Priority', 'Product', 'Reason', 'Reopen Time', 'Status', 'Test Case ID', 'Translated Cause Analysis', 'Translated Corrective Action', 'Translated Description', 'Translated Title', 'Translation Status', and 'Type of Activity'. On the right, the 'Export List' contains 'Created Date', 'Title', 'Description', 'QC Activity', 'Defect Origin', 'Product Type', 'Severity', and 'Type'. Below these lists is a 'Date format' dropdown set to 'dd-MM-yy'. At the bottom, there is a 'Templates' section with a 'Save as Template' button, a dropdown menu showing 'Full - PhuongLL', and buttons for 'Use This Template' and 'Delete'. An 'Export' button is also visible at the bottom left.

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Export based on existed template

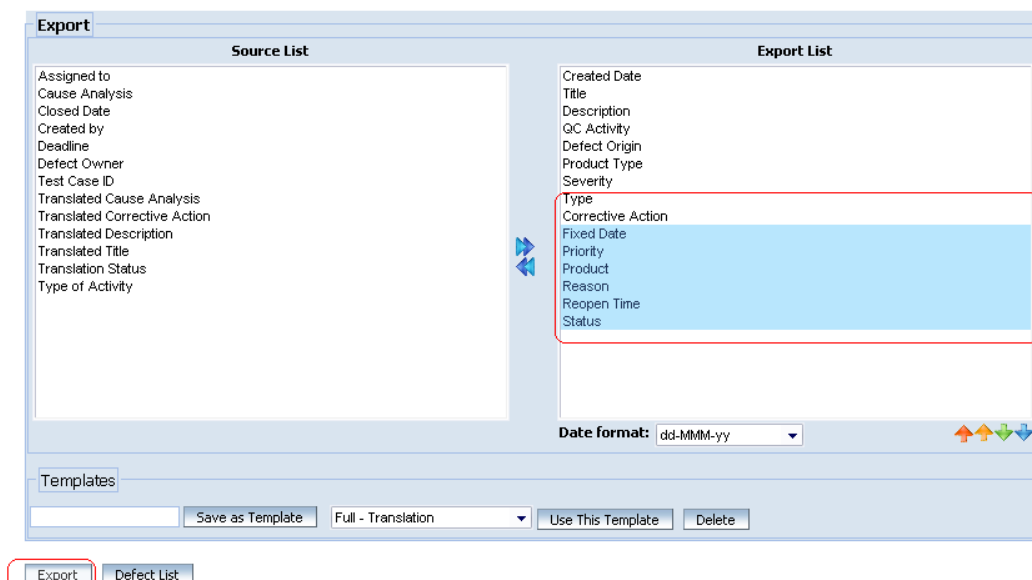
- Select a template from available templates list by selecting Template combo box and clicking “Use this template” button then click the button “Export”:



- Click on button “Open” to open the exported defects file and “Save” to save the file in local machine

Export based on customized template

- By default, Export List contains mandatory fields. As order of fields from top to bottom, fields in export list will be appropriately displayed from left to right. Source List contains remained fields of defects to be exported:



- Select items in lists and use supplied button (Move left, Move right, Move up, Move down, Move top, Move bottom) to customize export fields are their order then click the button “Export” to export defects

Save customized template as your template

- After created the customized template as description above, enter the name in template name text field then click the button “Save as template”

Delete export template

- Select a template from available templates list by selecting Template combo box and clicking "Delete" button

Note:

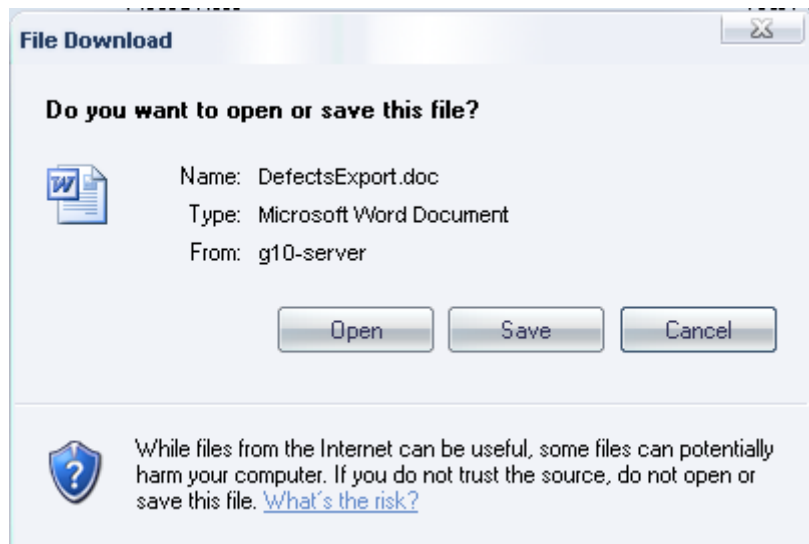
- Fsoft's pre-defined templates can not be deleted. Only user's template can be deleted by him
- All defects to be exported are the defects chosen from the list defects screen

2.3.9 Export defect detail

Path: click the button "export" from the defect detail screen



- The Open dialog is displayed as below:



Click "Open" to open exported defect and save to save defect into local machine:

Detail Report			
Defect ID: 10003042	Created Date: 03-Mar-08	Product Type: Software package	
Created by: THONT	Product:		
Status: Assigned	Severity: Medium	Priority: High	
Defect Origin: Coding	QC Activity: Integration test	Type: Coding logic	
Test Case ID:			
Title: Title - Test 1 a			
Description: Description - Test			
Deadline: 09-Mar-08	Defect Owner: PHUONGLL	Assigned to: PHUONGLL	
Cause Analysis: Cause Analysis			
Corrective Action: Corrective Action			
Fixed Date:	Closed Date:		
Restriction: Internal	Translate Status: Not translated		

Note:

- All information of the selected defect will be exported, except information about discussion, defect history and attachments.

2.3.10 Move defects

Path: From the list defect screen

In order to move defects, follow these steps bellows:

Assigned to	TUANTA	Status	(All)	QC Activity	(All)							
Created by	(All)	Severity	(All)	Product	(All)							
+ Advanced Filter												
Search												
Result 1 - 3 of 3 defects in 1 pages												
	Defect ID	#	Title	Test Case ID	Severity	Priority	Status	Assigned to	Created by	Fixed Date	Deadline	Owner
	10000219	0	Title of Defect		Cosmetic	High	Error	TUANTA	TUANTA			TUANTA
	10000218	0	Title of Defect		Cosmetic	High	Error	TUANTA	TUANTA			TUANTA
	10000217	0	Title of Defect		Cosmetic	High	Error	TUANTA	TUANTA			TUANTA
Add New Batch Update Export						Project		INECE-PCS_Phase2		Move to Project		

- Choose defects from defect list
- Choose a destination project from combo box "Project"
- Click "Move To Project" button to move defects from current project to destination project.

Note

- This task only can be done by QA of the project. For users who are not QA, this function will be disabled

2.3.11 Translate defect

Path: From the defect detail screen, click the button "Translate"

Type all translated information for translated fields of defect into associated translation sections. Then select the translation status from the combo box then click "Save" button to update defect translation:

Defect Management System

Home Defect Management Administration Logout Help

Translate Defect

User: Tr?n Anh Tu?n - G10 - Project Manager Status: On-going
Date: 19-Mar-08 Project: DMS2

Title
Original: [Defect Report] DEV Progress Report: Open did not include "Fixing" status
Translation:

Description
Original: DEV Progress Report: Open did not include "Fixing" status
Translation:

Cause Analysis
Original:
Translation:

Corrective Action
Original:
Translation:

Translation Status: Not translated

Save Cancel

Comter, QA and PM of project can access this screen.

2.4 View defect report

Report function is used to analyze and evaluate defects of project basing on defect status, defect severity..., and moreover it helps manager to check progress of each Tester and Developer, ... Report is performed by any user in FPT-Software Company, customer, end-user that are assigned to project.

Path: From any page, click on the menu Defect Management/ Defect Report



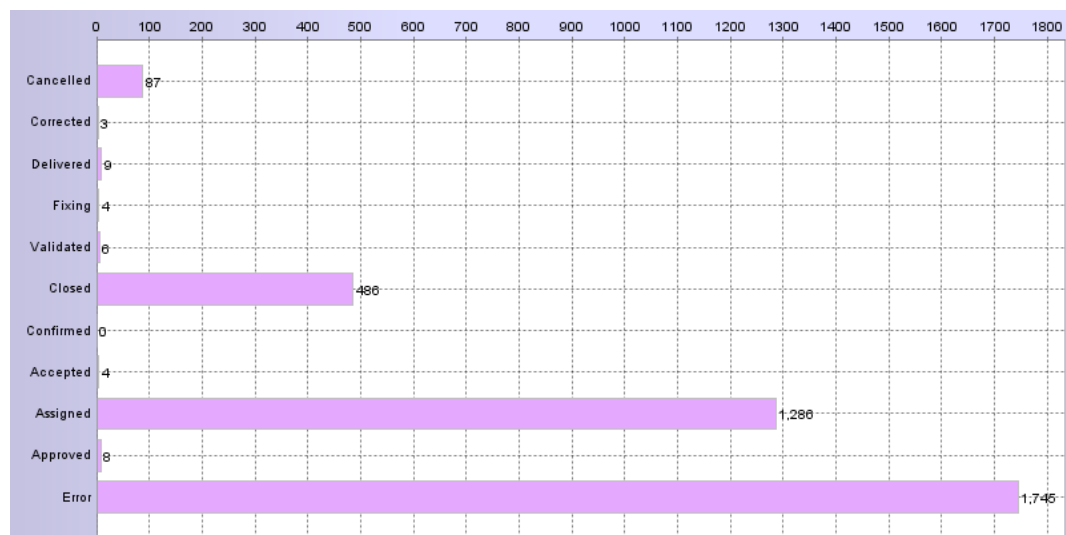
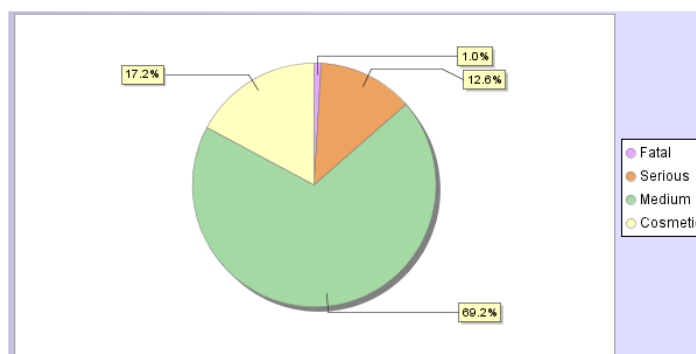
2.4.1 Defect general (Report all)

Path: displayed by default when user click on the menu Defect Management/ Defect Report or select value "Defect General" from the combo box "Report Type":

Product Type	(All)	From Date	23-Feb-08	(dd-MMM-yy)	Report Type	Defect General
Product	(All)	To Date	25-Feb-08	(dd-MMM-yy)	Report	

After the defect general report screen is displayed, Enter information related to report in each filter: From Date/ To Date/ Product Type/ Product and keep Report Type field then click the button "Report" to view the associated report:

Severity	Open Defect						Fixed Defect							Total (Severity)
	Error	Assigned	Fixing	Corrected	Confirmed	No	Delivered	Validated	Approved	Accepted	Canceled	Closed	No	
Fatal	2	7				9					1	2	3	12
Serious	3	136				139			1		2	12	15	154
Medium	570	177	1	1		749	3	2	1	1	15	75	97	846
Cosmetic		5	1			6				1	22	181	204	210
Total (Status)	575	325	2	1		903	3	2	2	2	40	270	319	1222
Total (W def)	1745	1286	4	3		3038	9	6	8	4	87	486	600	3638



2.4.2 Defect testcase

Path: Select value "Defect By TC" from the combo box "Report Type":

After the “Defect By TC” report screen is displayed, Enter information related to report in each filter: From Date/ To Date/ Product Type/ Product and keep Report Type field then click the button “Report” to view the associated report:

Defect by Test Case Report

User: Nguyễn Thái Thọ - G10 - Project Technical Leader Status: On-going
Date: 25-Feb-08 Project: DMS2

Product Type: (All) From Date: (dd-MMM-yy) Report Type: Defect By TC
Product: (All) To Date: (dd-MMM-yy) Report

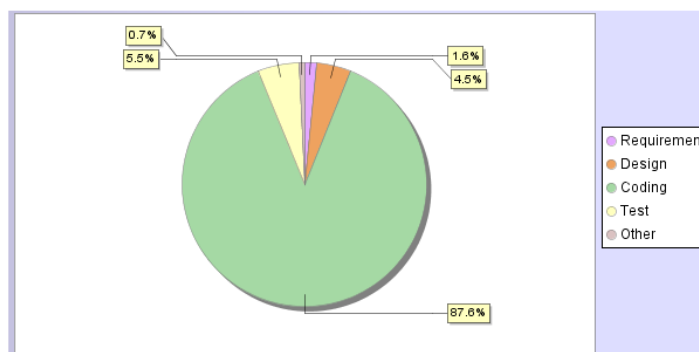
<td> <b @#%\$%^&*()_+				1		1	3
<td><tr> a</tr></td>				1		1	3
DMS2_TC_Add_001		1		2	8	11	19
DMS2_TC_Add_002					2	2	2
DMS2_TC_Add_012				1		1	3
DMS2_TC_Add_015		1		1	3	5	11
DMS2_TC_Move_001					2	2	2
DMS2_TC_Move_002					2	2	2
DMS2_TC_Move_003					3	3	3
DMS2_TC_Move_004			1	2		3	5
DMS2_TC_Move_005				1		1	1
DMS2_TC_Move_006					1	1	1
DMS2_TC_Move_007					2	2	2
DMS2_TC_Move_008				1	1	2	4
Le Lan Phuongdddddddddd	2					2	20
None					1	1	1
TC_Import_001				1		1	3
Test	1					1	10
~!@#%\$%^&*()_+				1		1	3
	3	2		10	28	43	98

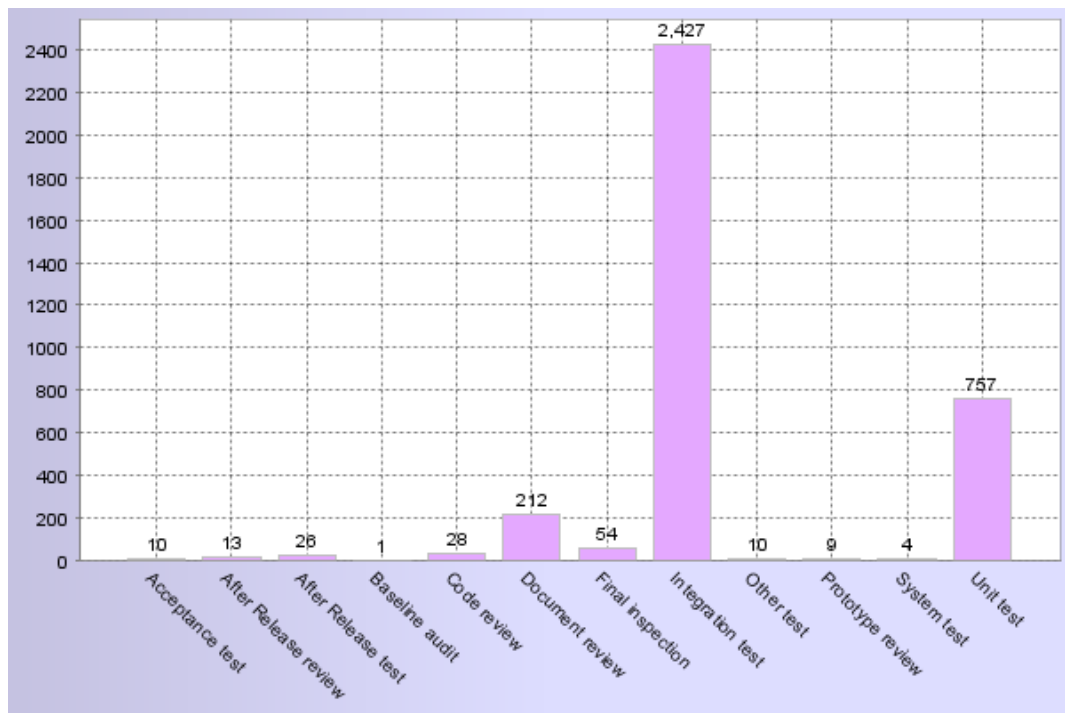
2.4.3 Defect distribution

Path: Select value “Defect Distribution” from the combo box “Report Type”:

After the “Defect Distribution” report screen is displayed, Enter information related to report in each filter: From Date/ To Date/ Product Type/ Product and keep Report Type field then click the button “Report” to view the associated report:

QC Activity	Requirement					Design					Coding					Test					Other					W.def
	F	S	M	C	W	F	S	M	C	W	F	S	M	C	W	F	S	M	C	W	F	S	M	C	W	
Acceptance test									3	3				1	1			1		3			1		3	10
After Release review								1	7	10				1	1				1	1			1	1		13
After Release test									4	4				2	2	2				20						26
Baseline audit																							1	1		1
Code review													3	19	28											28
Document review			5	36	51		8	26	20	138				1	1			5	7	22						212
Final inspection				6	6			1	1	4				8	11	35			2	2	8			1	1	54
Integration test											1	5	749	25	2307	4	8	11	1	114			2		6	2427
Other test																					1				10	10
Prototype review																		3		9						9
System test																		1	1	4						4
Unit test				1	1				1	1	3	130	8	33	737		1	3	1	15			1	3		757
Total			5	43	58		8	28	36	160	4	135	768	93	3112	6	9	26	13	196	1		4	3	25	3551



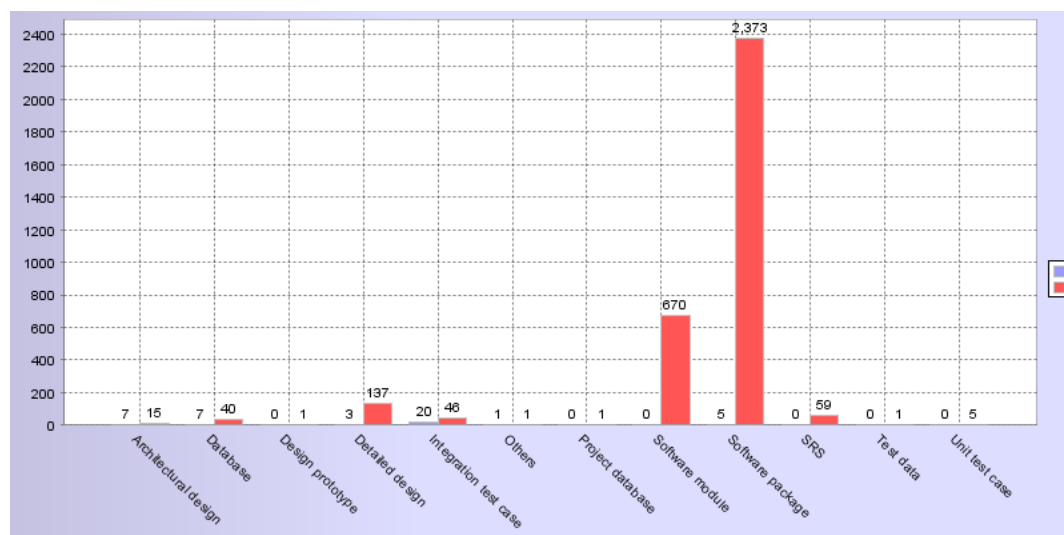


2.4.4 Defect leakage

Path: Select value “Defect Leakage” from the combo box “Report Type”:

After the “Defect Leakage” report screen is displayed, Enter information related to report in each filter: From Date/ To Date/ Product Type/ Product and keep Report Type field then click the button “Report” to view the associated report:

Product Type	Product	Leakage					%	Total				
		F	S	M	C	W		F	S	M	C	W
Architectural design Database	DMS2_HLD_v1.0			1	4	7	46.7%			1	12	15
					7	7	17.9%		5	1	11	39
	All Products				7	7	17.5%		5	1	12	40
Design prototype Detailed design	DMS2_DDD_DefectManagement_v1.0				3	3	9.7%			9	4	31
	DMS2_DDD_SystemSetting_v1.0									2		6
	DMS2_DDD_Others_v1.0								2	3	2	21
	DMS2_DDD_Import_v1.0								5	3	4	38
	DMS2_DDD_QueryManagement_v1.0								1	10	6	41
	All Products				3	3	2.2%		8	27	16	137
Integration test case Others	DMS2_Testcase_v1.0	2				20	43.5%	2		6	8	46
					1	1	100%				1	1
	All Products										1	1
Project database Software module Software package	DMS2_SourceCode_v1.0				5	5	3.1%	3	124	3	11	670
									1	27	75	161
	All Products				5	5	0.2%		3	731	4	2212
SR5	DMS2_SR5_DefectManagement_v1.0								4	758	79	2373
	DMS2_SR5_SystemSetting_v1.0									1	17	20
	DMS2_SR5_Others_v1.0										1	1
	DMS2_SR5_Import_v1.0										2	2
	DMS2_SR5_QueryManagement_v1.0									15	15	15
	DMS2_SR5_DefectReport_v1.0									2	2	2
	All Products									4	5	17
Test data Unit test case										2	2	2
	All Products									5	44	59
Total		2		1	20	43	1.3%	5	142	801	186	3349

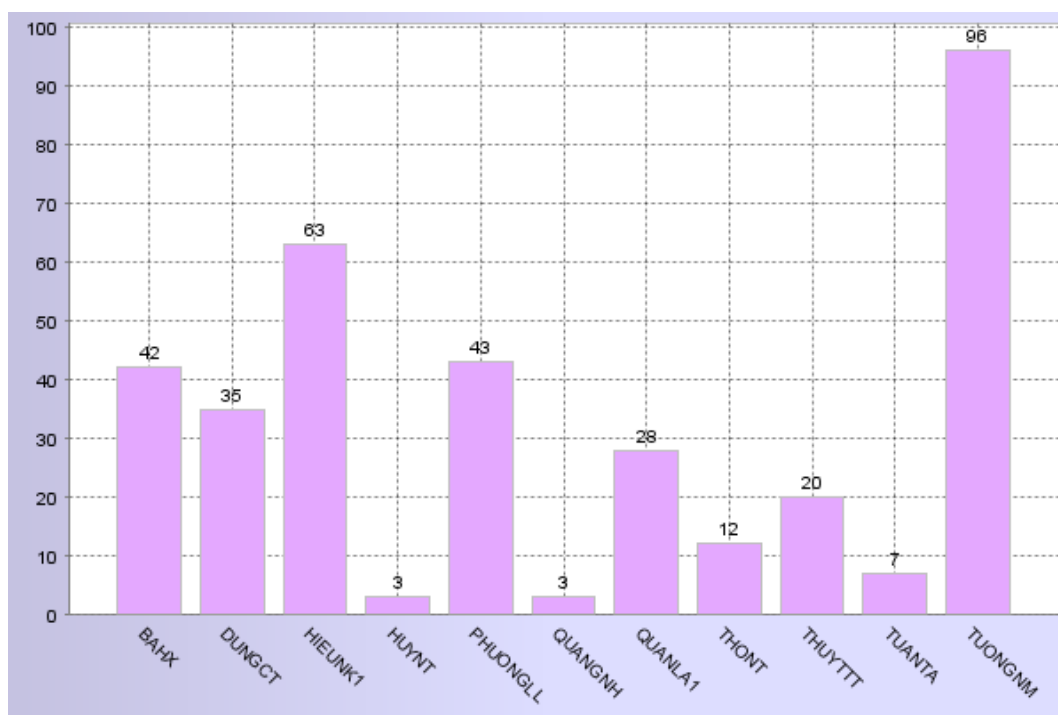


2.4.5 Defect owner tracking

Path: Select value “Defect Owner Tracking” from the combo box “Report Type”:

After the “Defect Owner Tracking” report screen is displayed, Enter information related to report in each filter: From Date/ To Date/ Product Type/ Product and keep Report Type field then click the button “Report” to view the associated report:

Owner	Unit Test		Integration Test		System Test		Acceptance Test		Regression Test		After Release Test		Code Review		Others		Total (W.def)
	No	W.def	No	W.def	No	W.def	No	W.def	No	W.def	No	W.def	No	W.def	No	W.def	
BAHX			1	1											27	41	42
DUNGCT	13	23	1	3			1	1					3	5	3	3	35
HIEUNK1	8	16	4	6			1	1			2	2	4	4	24	34	63
HUYNT			1	3													3
PHUONGLL			2	2											21	41	43
QUANGNH	1	1													2	2	3
QUANLA1	1	3	3	3			1	1			4	4			15	17	28
THONT	4	8	1	1											3	3	12
THUYTTT											2	20					20
TUANTA															5	7	7
TUONGNIM															34	96	96
Total	27	51	13	19			3	3			8	26	7	9	134	244	352

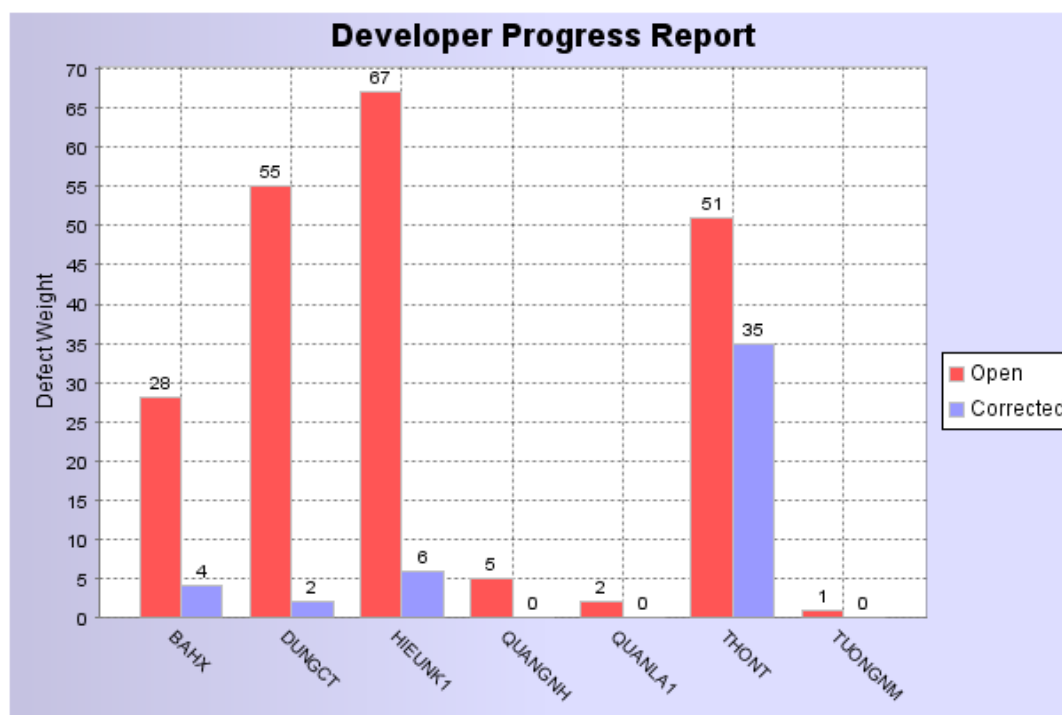


2.4.6 Defect progress

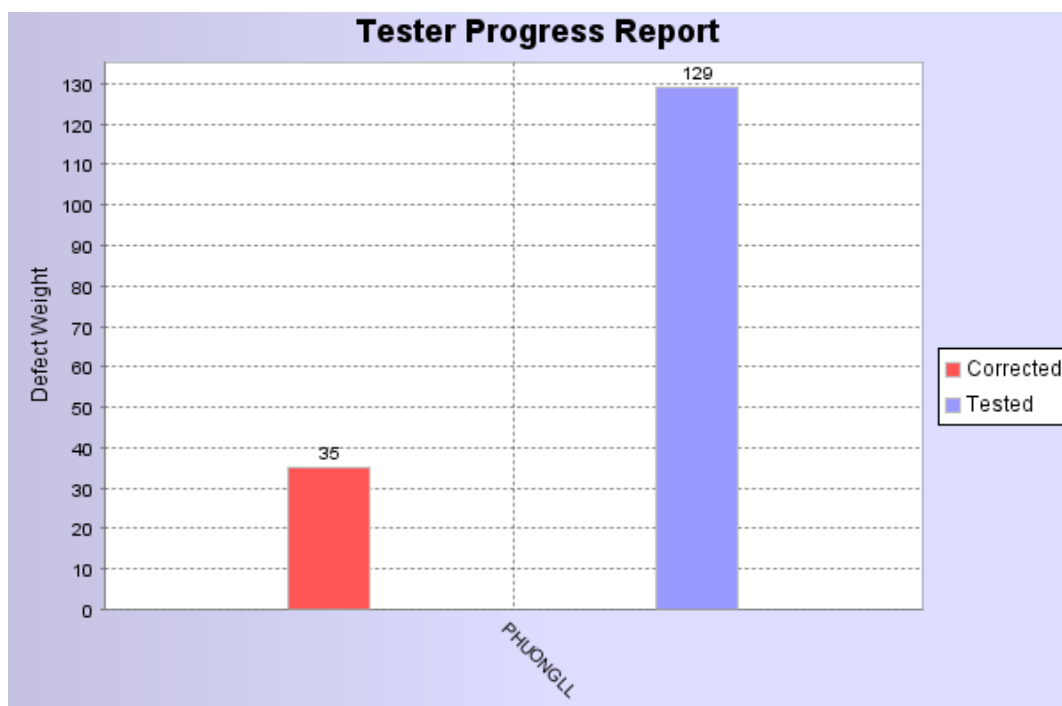
Path: Select value "Defect Progress" from the combo box "Report Type".

After the "Defect Progress" report screen is displayed, Enter information related to report in each filter: From Date/ To Date/ Product Type/ Product and keep Report Type field then click the button "Report" to view the associated report:

Developer	Open						Corrected					
	F	S	M	C	No	W	F	S	M	C	No	W
BAHX			3	19	22	28			1	1	2	4
DUNGCT		4	9	8	21	55				2	2	2
HIEUNK1	1	1	10	22	34	67			1	3	4	6
QUANGNH			1	2	3	5						
QUANLA1				2	2	2						
THONT			13	12	25	51		2	7	4	13	35
TUONGNM				1	1	1						
Total	1	5	36	66	108	209		2	9	10	21	47



Tester	Corrected						Tested					
	F	S	M	C	No	W	F	S	M	C	No	W
PHUONGLL		2	7	4	13	35	1	3	16	56	76	129
Total		2	7	4	13	35	1	3	16	56	76	129

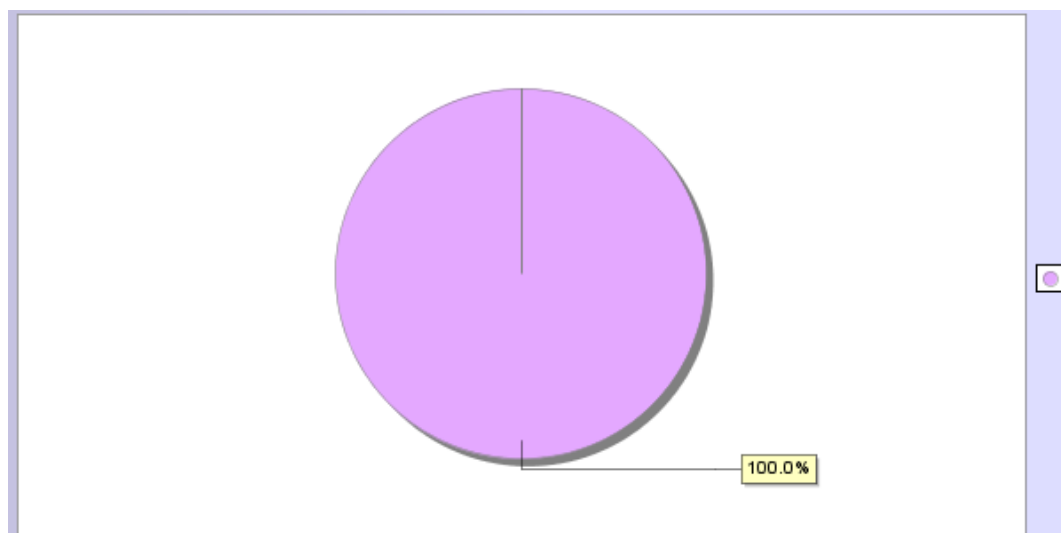
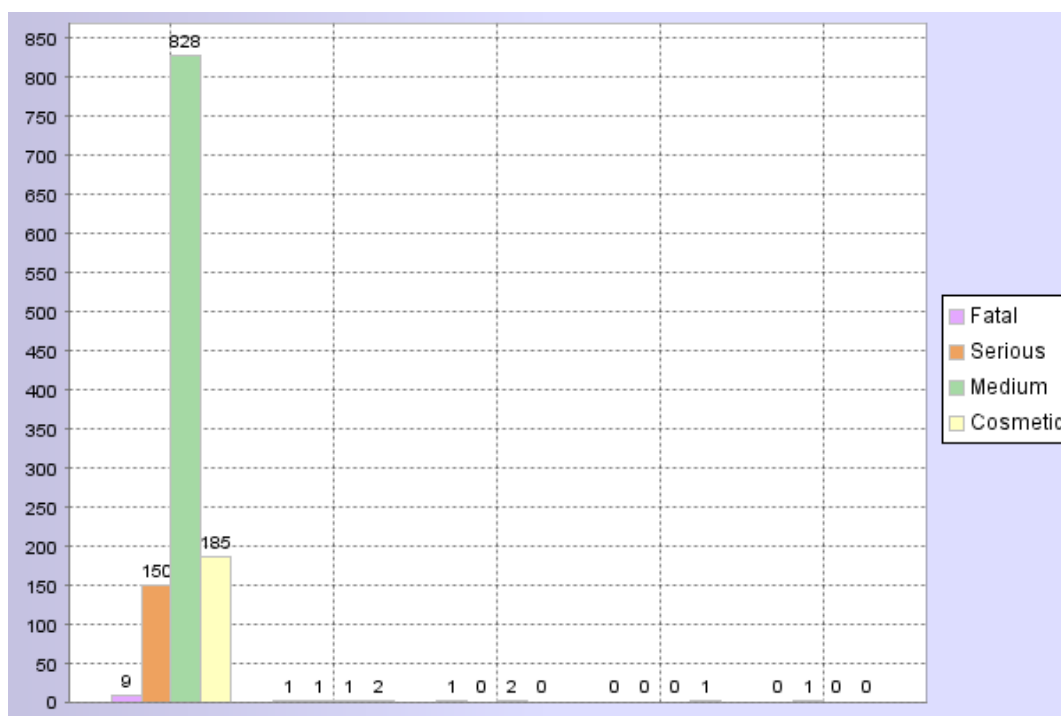


2.4.7 Defect re-open

Path: Select value "Defect Re-open" from the combo box "Report Type":

After the “Defect Re-open” report screen is displayed, Enter information related to report in each filter: From Date/ To Date/ Product Type/ Product and keep Report Type field then click the button “Report” to view the associated report:

No	Fatal	Serious	Medium	Cosmetic	Total
One Time	9	150	828	185	1172
Re-open 1	1	1	1	2	5
Re-open 2	1		2		3
Re-open 3				1	1
More than 3		1			1
Total	11	152	831	188	1182

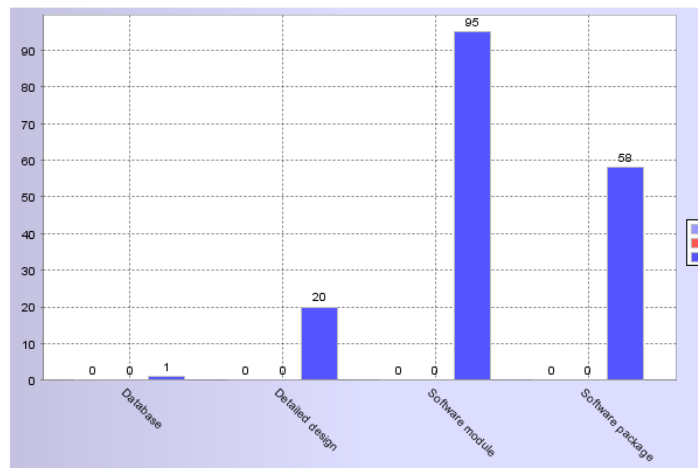


2.4.8 Defect summary

Path: Select value “Defect Summary” from the combo box “Report Type”:

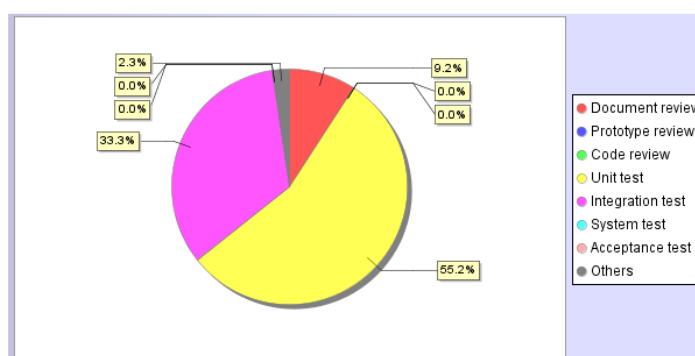
After the “Defect Summary” report screen is displayed, Enter information related to report in each filter: From Date/ To Date/ Product Type/ Product and keep Report Type field then click the button “Report” to view the associated report:

Product Type	Product	Planned Defect	Re-planned Defect	Actual Defect	Deviation
Database				1	1
Detailed design	DMS2_DDD_QueryManagement_v1.0			20	20
Software module				95	95
Software package	DMS2_SourceCode_v1.0			1	1
				57	57
	All Products			58	58
Total				174	174



Click the link “Actual Defect” to view detailed reports, by default, the actual detailed defect by QC Activity report is displayed:

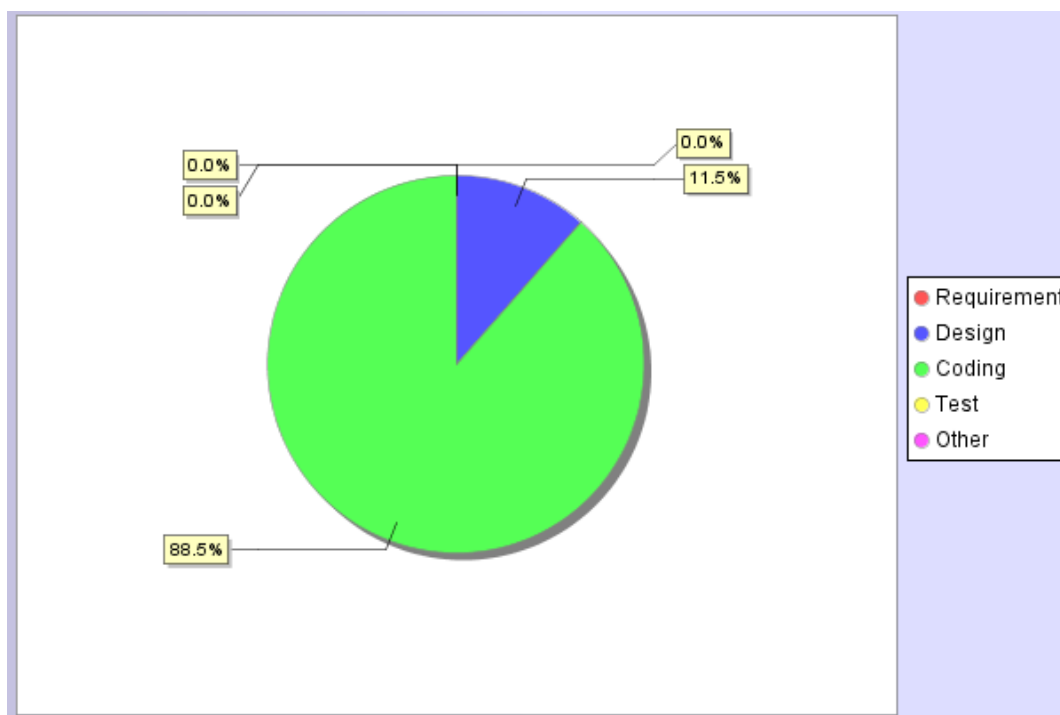
Product Type	Product	Document	Prototype Review	Code Review	Unit Test	Integration Test	System Test	Acceptance Test	Others
Database					1				
Detailed design	DMS2_DDD_QueryManagement_v1.0	16							4
Software module					95				
Software package	DMS2_SourceCode_v1.0					1			
						57			
	All Products					58			
Total		16			96	58			4



From the combo box “Actual Detail Defect”, select the value “By Defect Origin” to view the actual detailed defect by Defect Origin:

Actual Detail Defect By Defect Origin
By QC Activity
By Defect Origin

Product Type	Product	Requirement					Design					Coding					Test					Other				
		F	S	M	C	W	F	S	M	C	W	F	S	M	C	W	F	S	M	C	W	F	S	M	C	W
Database															1	1										
Detailed design	DMS2_DDD_QueryManagement_v1.0						1	4	3	20																
Software module												19														
Software package	DMS2_SourceCode_v1.0													1	1											
												19														
	All Products											19	1		58											
	Total						1	4	3	20		19	19	2	154											

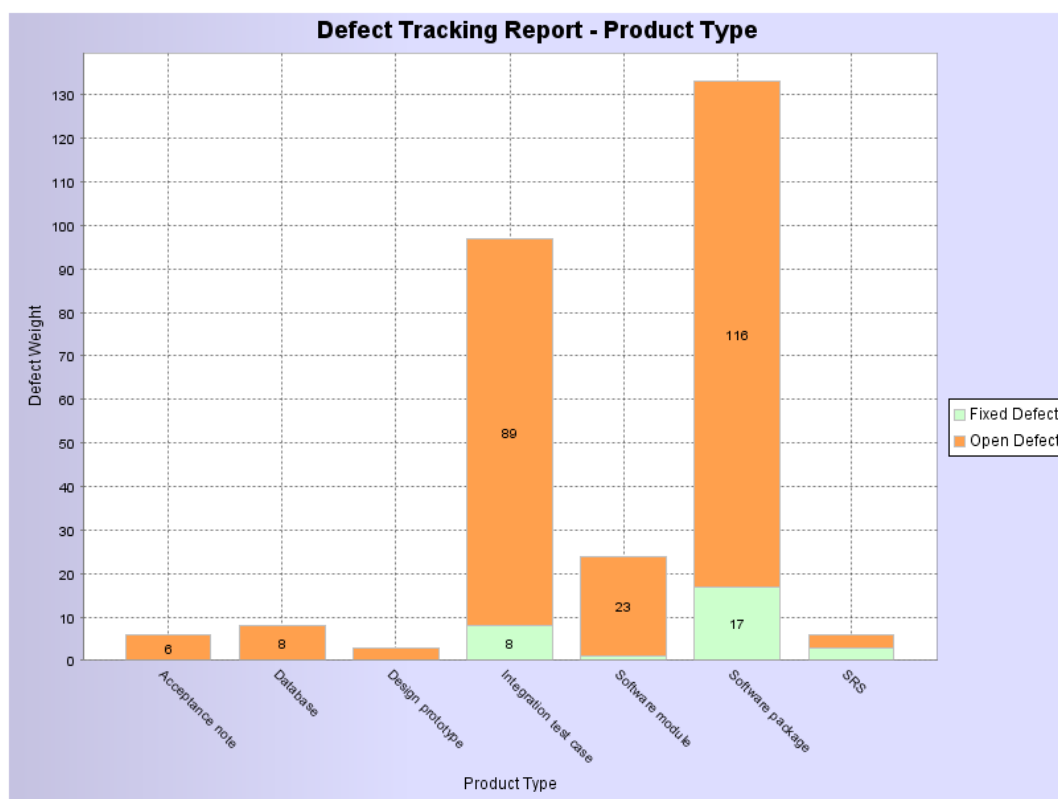
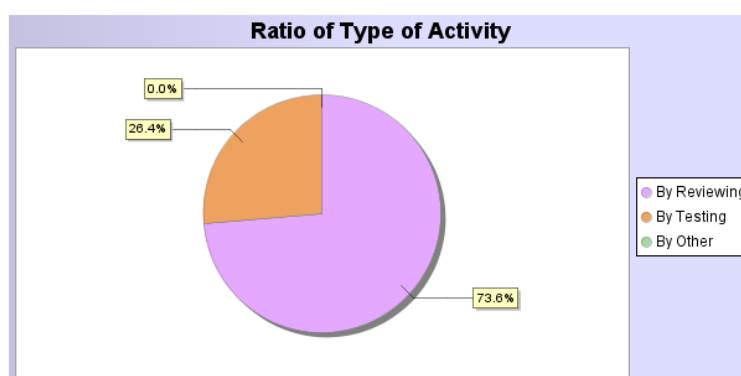


2.4.9 Defect tracking

Path: Select value "Defect Tracking" from the combo box "Report Type":

After the "Defect Tracking" report screen is displayed, Enter information related to report in each filter: From Date/ To Date/ Product Type/ Product and keep Report Type field then click the button "Report" to view the associated report:

Product Type	Product	By Reviewing					By Testing					By Other					Total		Fixed Defect				
		F	S	M	C	W	F	S	M	C	W	F	S	M	C	W	No	W	F	S	M	C	W
Acceptance note				2		6											2	6					
Database				1		3		1			5						2	8					
Design prototype				1		3											1	3					
Integration test case	DMS2_Testcase_v2.0			6	4	22											10	22		2	2		8
				22	9	75											31	75					
	All Products			28	13	97											41	97		2	2		8
Software module				1		3			4	9	21						14	24				1	1
Software package	DMS2_SourceCode_v1.0								1		3						1	3					
	DMS2_SourceCode_v2.0		1	6		23	1		1		13						9	36	1	3			14
				21		63		1	7	5	31						34	94		1			3
	All Products		1	27		86	1	1	9	5	47						44	133	1	4			17
SRS	DMS2_SRS_Import_v1.1.1			1		3											1	3					
				1		3											1	3			1		3
	All Products			2		6											2	6			1		3
Total		1	62	13	204	1	2	13	14	73							106	277	1	7	3		29

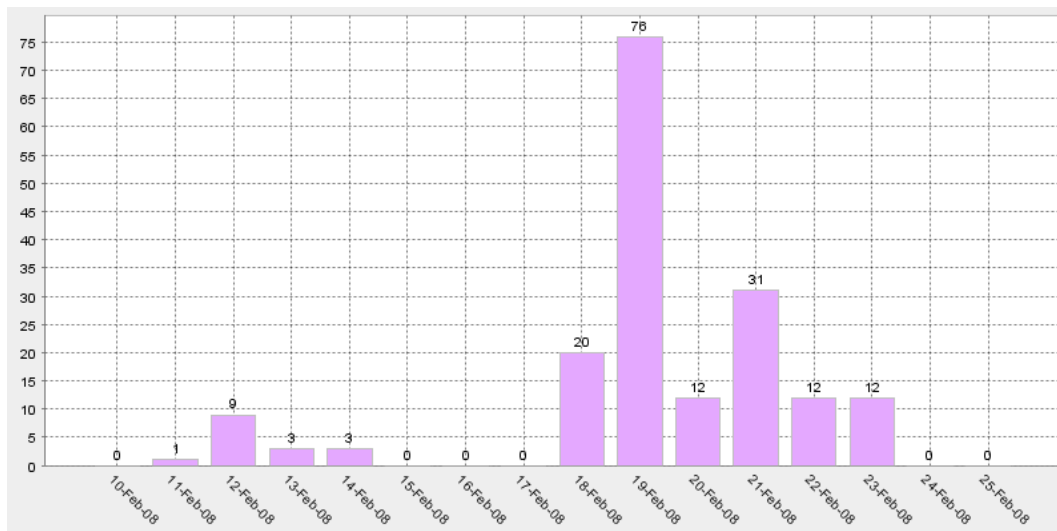
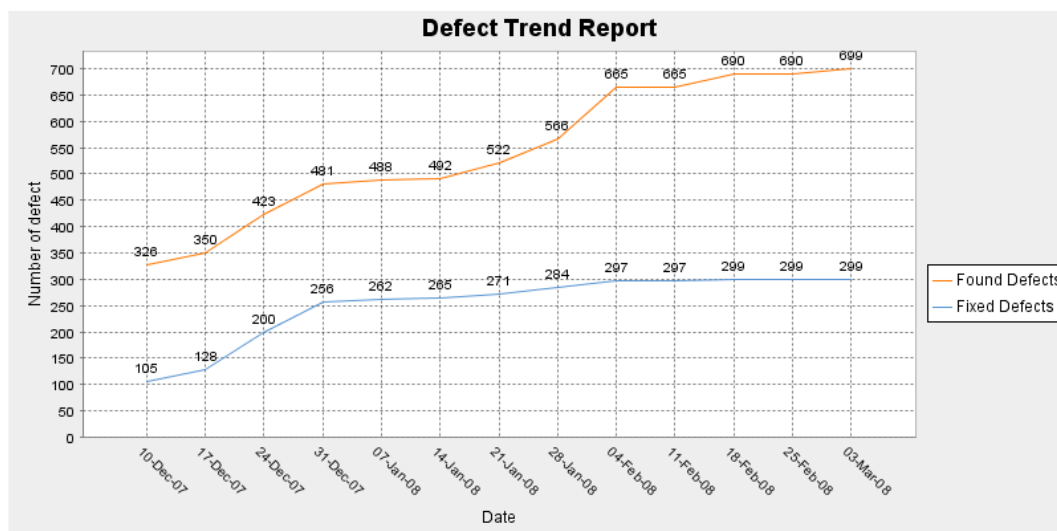


2.4.10 Defect trend

Path: Select value "Defect Trend" from the combo box "Report Type"

Product Type	(All)	From Date	03-Dec-07	(dd-MMM-yy)	Report Type	Defect Trend
Product	(All)	Time Interval	12 Weeks			Report
			15 Days			
			12 Weeks			
			6 Months			

After the “Defect Trend” report screen is displayed, Enter information related to report in each filter: From Date/ Time Interval/ Product Type/ Product and keep Report Type field then click the button “Report” to view the associated report:



2.4.11 Defect type report

This kind of report support user to view the distribution of problems happened in project. To determine which problems should be analyzed to find root causes and take preventive actions.

Path: Select value “Defect Type” from the combo box “Report Type”:

After the “Defect Type” report screen is displayed, Enter information related to report in each filter: From Date/ To Date/ Product Type/ Product and keep Report Type field then click the button “Report” to view the associated report:

(TBD for imaged)

3 ADMINISTRATION

3.1 DMS setting

3.1.1 DMS Mail Setting

Path: from any page, select the menu Administration/DMS Setting/Mail Setting



This screen permits DMS administrator to configure Mail setting: when there is any change related to defect (add new, update...), system will base on Mail setting to define to whom it will send notification mail. The setting is the default setting for all projects in DMS but PM of a project can change manually in Project Setting – Mail Setting function.

After the appearance of DMS Mail Setting, select and check the checkboxes for mail setting then click the button “Save” to register setting for the system

Mail Setting

User: Nguyễn Thái Thọ - G10 - Project Technical Leader **Status:** On-going
Date: 25-Feb-08 **Project:** DMS2

Type	Value	Assignee	Creator	PM	PTL	QA	Owner	Others
Change	Assignee	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn
Status	Error	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn
	Confirmed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Assigned	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Fixing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn
	Corrected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Delivered	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Validated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Closed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Cancelled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Severity	Accepted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Fatal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Priority	Serious	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Immediately	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	High	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

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3.1.2 DMS Workflow Setting

Path: from any page, select the menu Administration/DMS Setting/Workflow Setting

3.1.2.1 Workflow List Screen

Path: displayed by default when entering DMS workflow setting function

Workflow List

User: Nguyễn Thái Thọ - G10 - Project Technical Leader **Status:** On-going
Date: 25-Feb-08 **Project:** DMS2

#	Default	Name	Description
1	<input type="radio"/>	FSOFT Previous Workflow	6 Defect Status: Error, Assigned, Corrected, Closed, Canceled, Accepted
2	<input type="radio"/>	FSOFT Only	9 Defect Status: Error, Confirmed, Assigned, Fixing, Corrected, Delivered, Closed, Canceled, Accepted
3	<input type="radio"/>	FSOFT and Customer	Similar to FSOFT Only with another defect status: Validated
4	<input type="radio"/>	FSOFT, Customer and End-User	Similar to FSOFT and Customer with another defect status: Approved
5	<input checked="" type="radio"/>	FSOFT and IBM	Similar to FSOFT Only but remove 1 defect: Fixing
6	<input checked="" type="radio"/>	FSOFT and Hitachi	Similar to FSOFT and Customer but remove 1 defect: Fixing
7	<input checked="" type="radio"/>	FSOFT and Neopost	Similar to FSOFT Only but remove 1 defect: Fixing

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Apply Workflow:

- Select appropriate workflow from the Workflow List screen then click the button “Apply Workflow”. The selected workflow will be use by default for all projects in DMS

Delete Workflow:

- Click the Icon in order to delete the selected workflow. If the workflow was used by any project, it cannot be deleted. Otherwise, a confirm dialog appears “Do you really want to delete this workflow?”
 - + Click “Yes” to delete the workflow
 - + Click “No” to cancel delete and return to workflow list screen

3.1.2.2 Create workflow

Path: click the button “Create Workflow” on the Workflow list screen

- Enter necessary information into related fields of new workflow then click the button “Save Workflow” to register the new workflow into system

Workflow Definition

User: Nguyễn Thái Thọ - G10 - Project Technical Leader Status: On-going
Date: 25-Feb-08 Project: DM52

Workflow Name *	Mixed workflow for Fsoft, France customer and End-User
Description	This WF is created for european projects
Allowed Members	PM

Current Status	Next Status										
	Error	Assigned	Fixing	Corrected	Delivered	Validated	Approved	Closed	Confirmed	Cancelled	Accepted
Error		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Assigned	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Corrected	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Delivered	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Validated	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Approved	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Closed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Confirmed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cancelled	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Accepted	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Save Workflow cancel

Workflow Name *	Mixed workflow for Fsoft, France customer and End-User
Description	This WF is created for european projects
Allowed Members	CUSTOMER

Current Status	Next Status										
	Error	Assigned	Fixing	Corrected	Delivered	Validated	Approved	Closed	Confirmed	Cancelled	Accepted
Error		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assigned	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixing	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corrected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Delivered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Validated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Approved	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Confirmed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Cancelled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Accepted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Save Workflow cancel

Note:

- Workflow Name: is mandatory for the workflow
- Allowed Members: multiple roles can be set up for the workflow, and at least one role must be set in a new workflow

3.1.3 Defect lifecycle (model)

There are some lifecycles which have been defined by Admin of system. PM can select one of models to apply for his project.

Workflow of one defect starts with **“Error”** status and end of the lifecycle with **“Closed”** status. Depend on which model is selected; there are several steps in a defect lifecycle as follows:

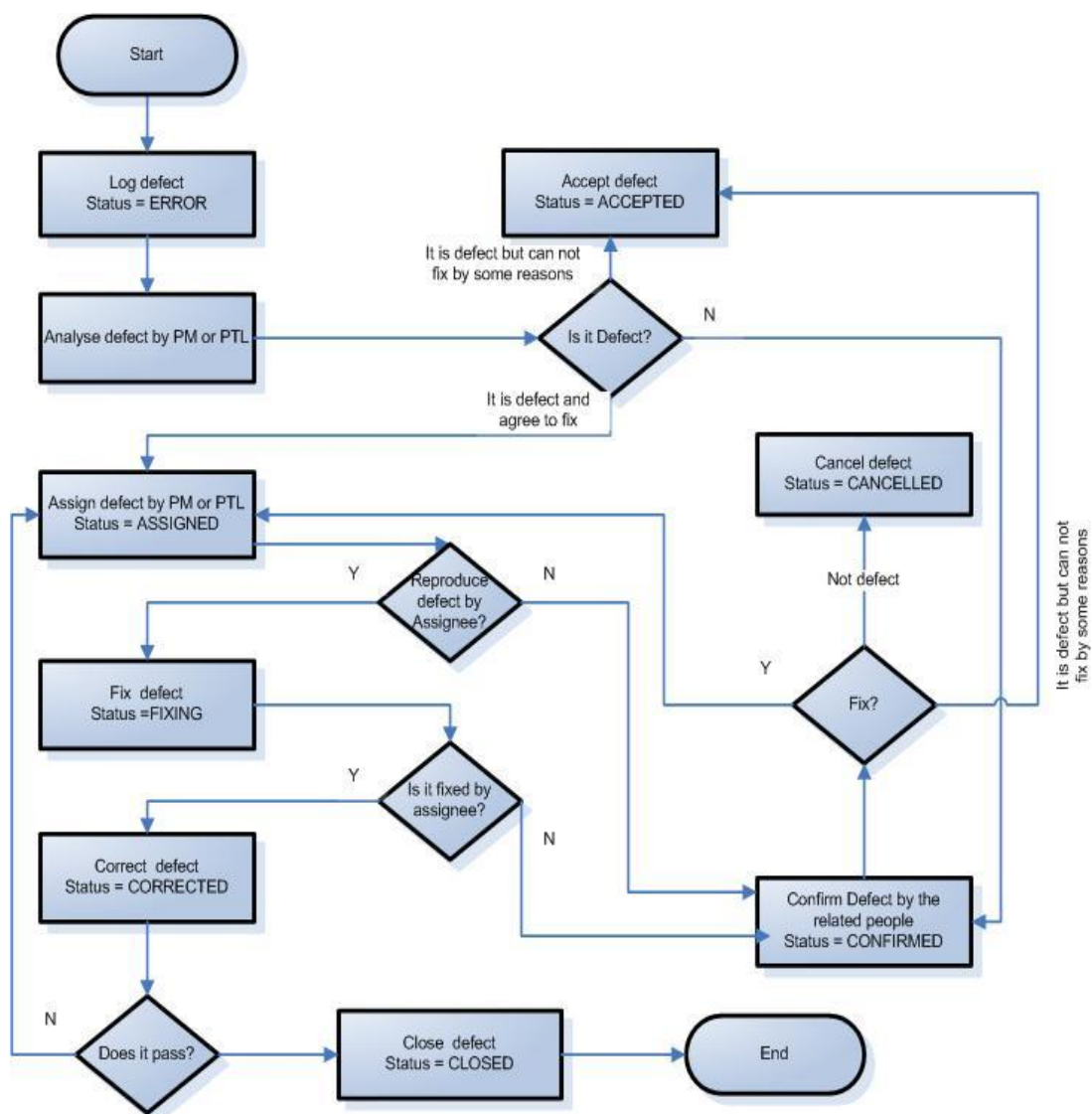
- Open defect: A defect is found and must be recorded in DMS by a submitter (typically reviewer or tester). The defect will be logged in DMS with defect status “**Error**” and other related information.
- Analysis defect: (defect type, origin, severity, etc.)
 - If it is confirmed as defect, assign appropriate person to fix the defect. Generally assigned member is also the author of the document or code in which the defect has been found. The defect status is changed to “**Assigned**”.
 - If the defect can be accepted (by customer) without any corrective action, the defect status will be changed to “**Accepted**” (normally by PTL, based on setting of the system)
 - If the defect is logged inappropriately, the defect status will be changed to “**Cancelled**” (normally by PTL, based on setting of the system)
 - If we need more information to analyze the defect, its status will be changed to “**Confirmed**” (normally by PM/PTL, based on setting of the system)
- Consider the defect: Assignee will analyze his assigned defect. If it is defect, he will fix it and change the defect status to **Fixing**. If it is not a defect, he changes status to **Confirmed**.
- Complete fixed defect: After fixed defect, assignee changes the defect status to “**Corrected**”.
- Test the defect by Fsoft: Tester or PTL re-tests “**Corrected**” defect. If the bug is fixed successfully then defect status will be changed to “**Closed**” with internal model (refer to model 1), or change to “**Delivered**” with external model (refer to model 2 & 3). Otherwise to “**Assigned**”. System will count re-opened times of each defect to report. The “**Delivered**” status can be customized and be used if customer and end user can log in DMS. (refer to model 2 or 3)
- Confirmed by Customer: After Customer tests the defect in the customer environment and if the defect is fixed successfully. The defect status is changed to “**Validated**” (Refer to model 2 or 3). Otherwise to “**Confirmed**”.
- Confirmed by End-user: End user tests the defect in the end-user’s environment. If the defect is fixed successfully, the defect status is changed to “**Approved**”. Otherwise to “**Confirmed**”
- Close the defect: with model 1 (Internal), the “**Closed**” status will be used by PTL or tester after re-test and determine that defect is passed. With model 2 or 3 (External), the defect status is changed to “**Closed**” after PTL receives the confirmation from customer or end user to closed the defect.
- The “**Confirmed**” status is used when team needs clear information of defect with stakeholders. After confirming, if it is defect and re-produces successfully then PM re-assigns or accepts or cancels the defect, refer to Analysis step above.

- **Note:** ability to change from one status to any status is configured flexibly by PM in DMS project workflow setting (refer to 3.2.2 for the details).

The pre-defined models are showed as diagrams below:

3.1.3.1 Model 1: Lifecycle for internal defect (Fsoft only)

3.1.3.1.1 Defect workflow



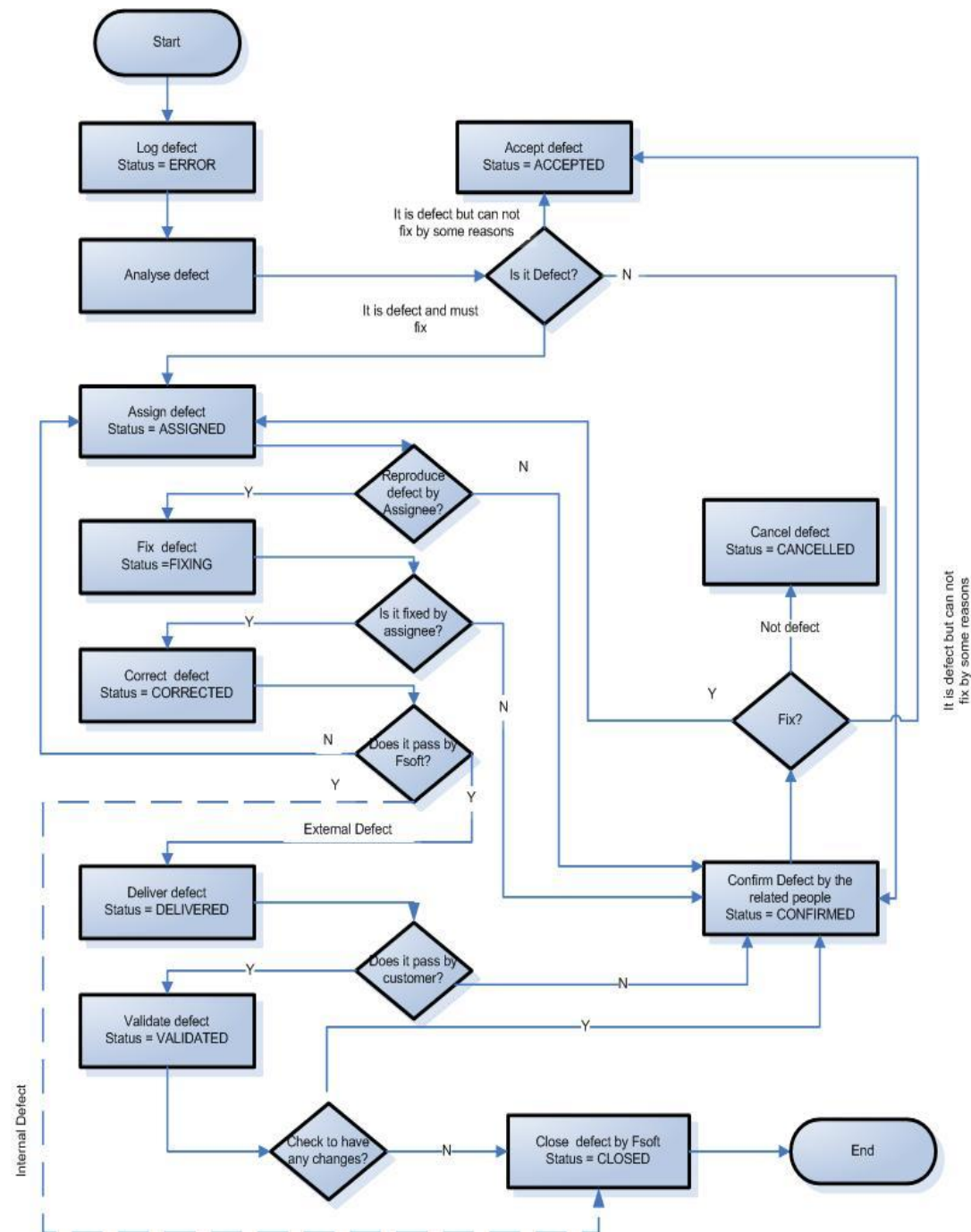
3.1.3.1.2 Defect status flow

Change Status with PM/PTL	Next Status								
	Current Status	Error	Assigned	Fixing	Corrected	Closed	Confirmed	Cancelled	Accepted
	Error		X				X	X	X
	Assigned			X			X	X	X
	Fixing				X		X		
	Corrected					X	X		
	Closed								
	Confirmed		X					X	X
	Cancelled								
	Accepted								
Change Status with Creator	Next Status								
	Current Status	Error	Assigned	Fixing	Corrected	Closed	Confirmed	Cancelled	Accepted
	Error		X				X	X	
	Assigned			X			X	X	
	Fixing				X		X		
	Corrected					X	X		
	Closed								
	Confirmed		X					X	
	Cancelled								
	Accepted								
Change Status with Assignee	Next Status								
	Current Status	Error	Assigned	Fixing	Corrected	Closed	Confirmed	Cancelled	Accepted
	Error								
	Assigned			X			X		
	Fixing				X		X		
	Corrected						X		
	Closed								
	Confirmed								
	Cancelled								

	Accepted								
Change Status with Tester	Next Status								
	Current Status	Error	Assigned	Fixing	Corrected	Closed	Confirmed	Cancelled	Accepted
	Error		X				X		
	Assigned						X		
	Fixing						X		
	Corrected					X	X		
	Closed								
	Confirmed		X						
	Cancelled								
	Accepted								
Change Status with QA Role	Next Status								
	Current Status	Error	Assigned	Fixing	Corrected	Closed	Confirmed	Cancelled	Accepted
	Error		X				X		
	Assigned						X		
	Fixing						X		
	Corrected					X	X		
	Closed								
	Confirmed		X						
	Cancelled								
	Accepted								
Change Status with Owner Role	Next Status								
	Current Status	Error	Assigned	Fixing	Corrected	Closed	Confirmed	Cancelled	Accepted
	Error		X	X	X		X		
	Assigned			X	X		X		
	Fixing				X		X		
	Corrected						X		
	Closed								
	Confirmed		X						
	Cancelled								
	Accepted								

3.1.3.2 Model 2: Defect lifecycle for Fsoft & customer

3.1.3.2.1 Defect workflow



3.1.3.2.2 Defect status flow

Change Status with PM/PTL	Next Status										
	Current Status	Error	Assigned	Fixing	Corrected	Delivered	Validated	Closed	Confirmed	Cancelled	Accepted
	Error		X						X	X	X
	Assigned			X					X	X	X
	Fixing				X				X		
	Corrected					X		X	X		
	Delivered						X		X		
	Validated							X	X		
	Closed										
	Confirmed		X							X	X
	Cancelled										
	Accepted										
Change Status with Creator	Next Status										
	Current Status	Error	Assigned	Fixing	Corrected	Delivered	Validated	Closed	Confirmed	Cancelled	Accepted

	Error		X						X	X	
	Assigned			X					X	X	
	Fixing				X				X		
	Corrected					X		X	X		
	Delivered								X		
	Validated								X		
	Closed										
	Confirmed		X							X	
	Cancelled										
	Accepted										
Change Status with Assignee	Next Status										
	Current Status	Error	Assigned	Fixing	Corrected	Delivered	Validated	Closed	Confirmed	Cancelled	Accepted
	Error										
	Assigned			X					X		
	Fixing				X				X		
	Corrected								X		

	Delivered								X		
	Validated								X		
	Closed										
	Confirmed										
	Cancelled										
	Accepted										
Change Status with Tester	Next Status										
	Current Status	Error	Assigned	Fixing	Corrected	Delivered	Validated	Closed	Confirmed	Cancelled	Accepted
	Error		X						X		
	Assigned								X		
	Fixing								X		
	Corrected					X		X	X		
	Delivered								X		
	Validated								X		
	Closed										

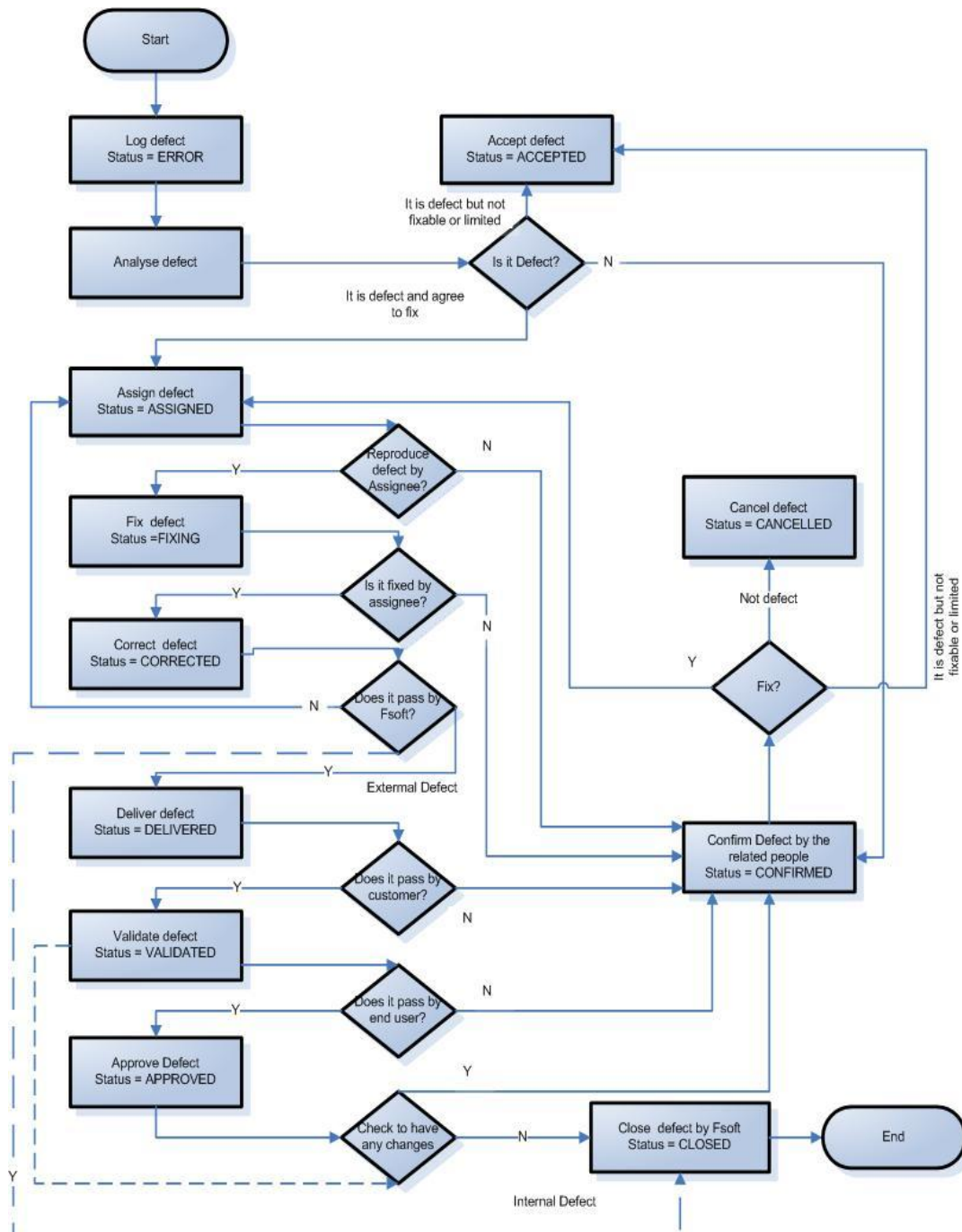
	Confirmed		X								
	Cancelled										
	Accepted										
Change Status with QA Role	Next Status										
	Current Status	Error	Assigned	Fixing	Corrected	Delivered	Validated	Closed	Confirmed	Cancelled	Accepted
	Error		X						X		
	Assigned								X		
	Fixing								X		
	Corrected					X		X	X		
	Delivered								X		
	Validated								X		
	Closed										
	Confirmed		X								
	Cancelled										
	Accepted										

Change Status with Owner Role	Next Status										
	Current Status	Error	Assigned	Fixing	Corrected	Delivered	Validated	Closed	Confirmed	Cancelled	Accepted
	Error		X	X	X				X		
	Assigned			X	X				X		
	Fixing				X				X		
	Corrected								X		
	Delivered								X		
	Validated								X		
	Closed										
	Confirmed		X								
	Cancelled										
	Accepted										
Change Status with Customer Role	Next Status										
	Current Status	Error	Assigned	Fixing	Corrected	Delivered	Validated	Closed	Confirmed	Cancelled	Accepted
	Error								X		X
	Assigned								X		X

	Fixing							X		
	Corrected							X		
	Delivered					X		X		
	Validated						X	X		
	Closed									
	Confirmed		X							X
	Cancelled									
	Accepted									

3.1.3.3 Model 3: Defect lifecycle for FSOFT, customer & end-user

3.1.3.3.1 Defect workflow



	Assigned			X						X	X	
	Fixing				X					X		
	Corrected					X			X	X		
	Delivered									X		
	Validated									X		
	Approved							X		X		
	Closed											
	Confirmed		X								X	X
	Cancelled											
	Accepted											
Change Status Assignee	Next Status											
	Current Status	Error	Assigned	Fixing	Corrected	Delivered	Validated	Approved	Closed	Confirmed	Cancelled	Accepted
	Error											
	Assigned			X						X		
	Fixing				X					X		
	Corrected									X		
	Delivered									X		

	Validated									X		
	Approved									X		
	Closed											
	Confirmed											
	Cancelled											
	Accepted											
Change Status with Tester	Next Status											
	Current Status	Error	Assigned	Fixing	Corrected	Delivered	Validated	Approved	Closed	Confirmed	Cancelled	Accepted
	Error		X							X		
	Assigned									X		
	Fixing									X		
	Corrected					X			X	X		
	Delivered									X		
	Validated									X		
	Approved									X		
	Closed											
	Confirmed		X									
	Cancelled											
	Accepted											
Change	Next Status											

Status with QA Role	Current Status	Error	Assigned	Fixing	Corrected	Delivered	Validated	Approved	Closed	Confirmed	Cancelled	Accepted
	Error		X							X		
	Assigned									X		
	Fixing									X		
	Corrected					X			X	X		
	Delivered									X		
	Validated									X		
	Approved									X		
	Closed											
	Confirmed		X									
	Cancelled											
	Accepted											
Change Status with Owner Role	Next Status											
	Current Status	Error	Assigned	Fixing	Corrected	Delivered	Validated	Approved	Closed	Confirmed	Cancelled	Accepted
	Error		X	X	X					X		
	Assigned			X	X					X		
	Fixing				X					X		
	Corrected									X		
	Delivered									X		

	Validated									X		
	Approved									X		
	Closed											
	Confirmed		X									
	Cancelled											
	Accepted											
Change Status with Customer Role	Next Status											
	Current Status	Error	Assigned	Fixing	Corrected	Delivered	Validated	Approved	Closed	Confirmed	Cancelled	Accepted
	Error									X		X
	Assigned									X		X
	Fixing									X		
	Corrected									X		
	Delivered						X			X		
	Validated									X		
	Approved									X		
	Closed											
	Confirmed		X								X	X
	Cancelled											
	Accepted											
Change Status with End-	Next Status											
	Current Status	Error	Assigned	Fixing	Corrected	Delivered	Validated	Approved	Closed	Confirmed	Cancelled	Accepted

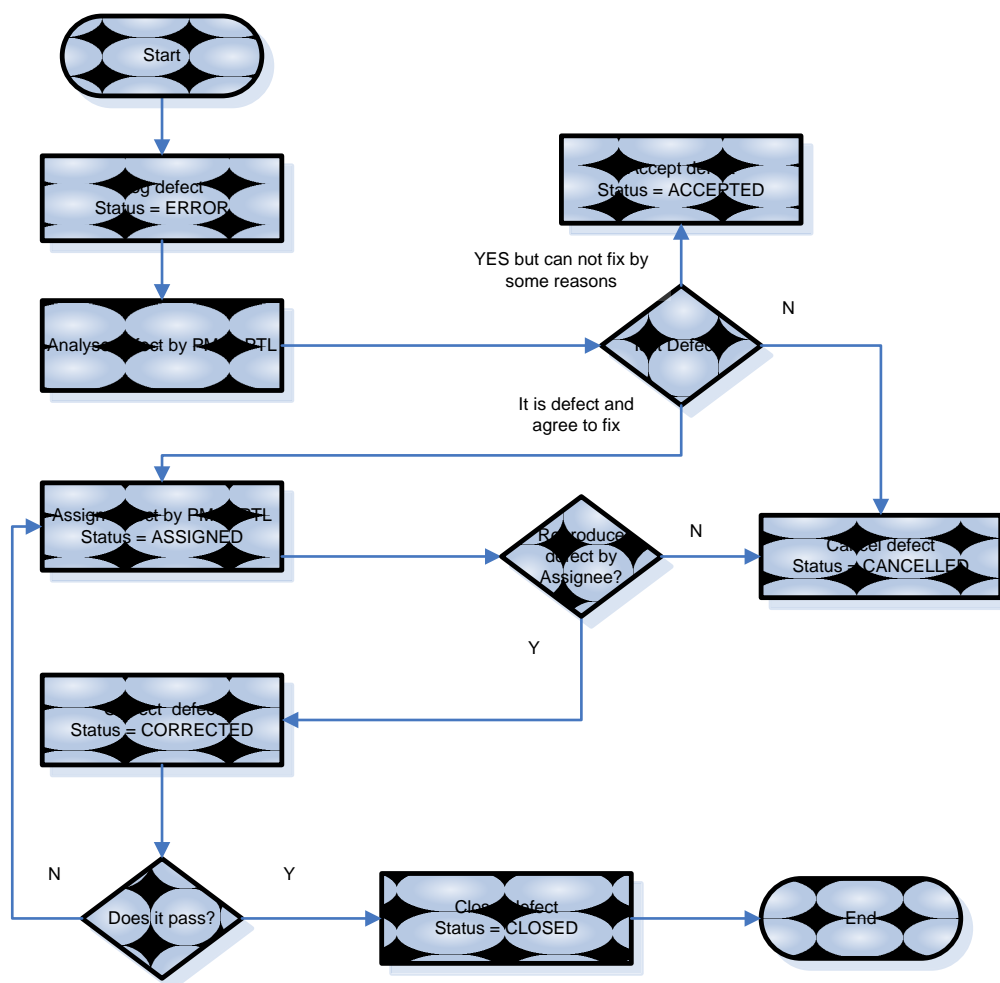
user Role	Error								X		X
	Assigned								X		X
	Fixing								X		
	Corrected								X		
	Delivered								X		
	Validated						X		X		
	Approved								X		
	Closed										
	Confirmed		X							X	X
	Cancelled										
	Accepted										

3.1.3.4 Model 4: Defect lifecycle for FSOF

3.1.3.4.1 Defect workflow

This is the model of current DMS. This model was created to use internally only and FSOFers will use it easily because there is just some small differences from current DMS:

1. Status "Pending" was changed to "Corrected"
2. Status "Tested" was changed to "Closed"



3.1.3.4.2 Defect status flow

Change Status with PM/PTL	Next Status						
	Current Status	Error	Assigned	Corrected	Closed	Cancelled	Accepted
	Error		X	x	x	X	X
	Assigned	x		X	x	X	X
	Corrected	X	X		X	x	

	Closed	x	x			x	
	Cancelled	x	x				
	Accepted	x	x			x	
Change Status with Creator	Next Status						
	Current Status	Error	Assigned	Corrected	Closed	Cancelled	Accepted
	Error		X			X	
	Assigned			X		X	
	Corrected	x	X		X		
	Closed	x	x				
	Cancelled	x	x				
	Accepted						
Change Status with Assignee (Defect is assigned to Developer but Developer is not person who creates this defect)	Next Status						
	Current Status	Error	Assigned	Corrected	Closed	Cancelled	Accepted
	Error						
	Assigned			X			
	Corrected						
	Closed						
	Cancelled						
	Accepted						
Change Status with Tester	Next Status						
	Current Status	Error	Assigned	Corrected	Closed	Cancelled	Accepted
	Error		X			x	
	Assigned						
	Corrected	x	X		X		
	Closed	x	x				
	Cancelled	x	x				
	Accepted						
Test change Status with QA Role	Next Status						
	Current Status	Error	Assigned	Corrected	Closed	Cancelled	Accepted
	Error		X			x	x
	Assigned						
	Corrected	x	X		X		
	Closed	x	x				
	Cancelled	x	x				

	Accepted	x	x			x	
Test change Status with Owner Role	Next Status						
	Current Status	Error	Assigned	Corrected	Closed	Cancelled	Accepted
	Error		X				
	Assigned			X			
	Corrected						
	Closed						
	Cancelled						
	Accepted						

3.2 Project setting

3.2.1 Project Mail Setting

Path: from any page, select the menu Administration/Project Setting/Mail Setting



This screen permits PM to configure Mail setting for his project: when there is any change related to defect (add new, update...), system will base on Mail setting to define to whom it will send notification mail.

After the appearance of Project Mail Setting, select and check the checkboxes for mail setting then click the button "Save" to register setting for the system or click the button "Cancel" to cancel the setting

Mail Setting

User: Trần Anh Tuấn - G10 - Project Manager
Date: 25-Feb-08

Status: On-going
Project: DMS2

Type	Value	Assignee	Creator	PM	PTL	QA	Owner	Others
Change	Assignee	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn
Status	Error	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn
	Assigned	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn
	Fixing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn
	Corrected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn
	Delivered	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn
	Validated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn
	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn
	Closed	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn
	Confirmed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn
	Cancelled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn
Accepted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn	
Severity	Fatal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn
	Serious	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn
Priority	Immediately	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn
	High	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PhuongLL@fsoft.com.vn

Switch to Default:

- Click the button “Switch to Default”; all values of project mail setting will be reset by associated DMS mail setting values

3.2.2 Project Workflow Setting

Path: displayed by default when entering Project workflow setting function

WorkFlow List

User: Trần Anh Tuấn - G10 - Project Manager
Date: 25-Feb-08

Status: On-going
Project: DMS2

Choose Workflow for Project

#	Default	Name	Description
1	<input type="radio"/>	MODEL 1 - INTERNAL FSOFT	Model 1 includes 8 status: Error, Assigned, Fixing, Corrected, Closed, Confirmed, Cancelled, Accepted. Model 2 is used by Internal FSoft
2	<input type="radio"/>	MODEL 2: FSOFT and CUSTOMER	Model 2 includes 10 status: Error, Assigned, Fixing, Corrected, Delivered, Validated, Closed, Confirmed, Cancelled, Accepted. Model 2 is used by Internal FSoft and Customer
3	<input type="radio"/>	MODEL 3 - FSOFT, CUSTOMER and END-USER	Model 3 includes 11 status: Error, Assigned, Fixing, Corrected, Delivered, Validated, Approved, Closed, Confirmed, Cancelled, Accepted. Model 2 is used by Internal FSoft and Customer and End-user.
4	<input type="radio"/>	MODEL 4 - CURRENT DMS	Model 4 includes 7 status: Error, Assigned, Corrected, Closed, Confirmed, Cancelled, Accepted. Model 4 is used by Internal FSoft and same with current DMS.
5	<input checked="" type="radio"/>	Work Flow Model 3 - FSoft + Customer + End - user - Approved by QA	There are 11 status: 1. Error 2. Assigned 3. Fixing 4. Corrected 5. Delivered 6. Validated 7. Approved 8. Closed 9. Confirmed 10. Cancelled 11. Accepted

Select appropriate workflow from the Workflow List screen then click the button “Apply Workflow”. The selected workflow will be use for the selected project.

4 APPENDIX

4.1 Defect Concept

4.1.1 Definition

A defect is any error (bug) found by testing and reviewing activities (All errors found by internal reviewer, external reviewer, customer or end-user).

If you consider fixing regarding any recommendation, this recommendation should be logged as a defect in DMS, too.

4.1.2 Defect description

The following table lists information related to defect:

(A = auto-generated, M = Mandatory, O = Optional, N/A: Not Assigned)

#	Data	Description of the Data	Max length	M/A/O
1	Project code	Code of the project in which the defect occurs		M
2	Defect ID	This is ID of the defect. This number is automatically generated whenever a new defect is added. Defect ID counter will not be reset.		M/A
3	Created By	Person who logged the defect, generally the person who found the defect such as tester or reviewer. This field cannot be changed.		M
4	Detected by	Account of person who found the defect.		O
5	Role	Role of person who detected the defect		O
6	Assigned To	Person who has responsibility to correct the defect, typically the author		O
7	Status	Current status of the defect		M
8	Severity	How serious the defect will affect on software program		M
9	Priority	How urgent the defect needs to be fixed		M
10	Created Date	Date on which the defect is found		M/A
11	Deadline	Date on which the defect should be fixed		O
12	Fixed Date	Date on which the defect is fixed		O/A
13	Closed Date	Date on which the defect is closed. It is automatically filled with current date when defect status is changed to Tested.		M/A
14	QC Activity	The QC activity in which the defect is found		M

#	Data	Description of the Data	Max length	M/A/O
15	Defect Origin	Software process in which the defect is caused		M
16	Product Type	Type product in which the defect is found.		M
17	Product	Name of product in which the defect is found.		O
18	Type	Classification of the defect follow the structure of the defect itself		M
19	Test Case ID	Test Case ID in which found the defect	150	O
20	Title	A short & brief description of the defect for quick recognition what the problem	150	M
21	Description	<p>Full description of the defect, including following items:</p> <p>Steps to Reproduce:</p> <p><Describe steps to reproduce the defect></p> <p>End Result:</p> <p><The actual result after perform steps to reproduce defects></p> <p>Expected Result:</p> <p><The state of being expected></p> <p>Additional Regression:</p> <p><More information about the defect: for example the defect also happened in module/function B, C,D etc.></p>	1200	M
22	Cause Analysis	Root cause of the defect or the reason why the defect occurred	1200	O
23	Corrective Action	Actions/steps to correct the defect	1200	O
24	History	Tracking the status changes of defect. It includes the date and person who has changed status of defect. The history is		A

#	Data	Description of the Data	Max length	M/A/O
		automatically generated and cannot be changed.		
25	Attached files	Extra files that come with the defect may be an image for illustration or source code file. Total attachment size cannot exceed 1Mb.		O
26	Re-open times	The numbers of re-open times of the defect		A
27	Restriction	To indicate that defect is belonged to internal user or external user		M (internal)
28	Reason	Reason if user changes defect status to "Accepted" or "Cancelled"		O
29	Translation status	Indicate the translation status of a defect		M (not translated)
30	Discussion	User comments about a defect	1200	O
31	Attachment's description	Description of an attachment	300	O

4.2 Defect related metrics and concepts

#	Name	Unit	Description
1	Open defects	Number of Def ()	Number of actual open defects in DMS, counting defects with defect status = Error, Assigned or Fixing.
2	Open weighted defects	Wdef	Actual open defects in DMS but with weight for each Defect Severity , counting defects with defect status = Error, Assigned or Fixing.
3	Total defects	Number of def	Number of actual defects in DMS, counting defects with all defect status except Cancelled .

#	Name	Unit	Description
4	Total weighted defects	Wdef	Total actual defects in DMS but with weight for each Defect Severity , counting defects with all defect status except Cancelled .
5	Defect rate	Wdef/UC P	Total actual weighted defects divided by actual project size (Ex: UCP, LOC, FP...).
6	Leakage	Wdef/UC P	Total actual leakage divided by actual project size (Ex: UCP, LOC, FP...).
7	Review effectiveness	Wdef/pd	Weighted defects found by review for each person-day.
8	Test effectiveness	Wdef/pd	Weighted defects found by test for each person-day.
9	Defect removal efficiency	%	Review efficiency + test efficiency
10	Review efficiency	%	Percentage of weighted defects found by review on total weighted defects of project.
11	Test efficiency	%	Percentage of weighted defects found by test on total weighted defects of project.
12	Estimated defects	Wdef	Weighted defects planned to be found in a project. Estimated defects = Estimated size in UCP x Defect rate of Norm
13	Re-estimated defects	Wdef	Weighted defects planned to be found in a project after re-planning. Re-estimated defects = Re-estimated size in UCP x Defect rate of Norm.
14	To be removed defects	Wdef	(Re-)Estimated size x Defect rate of Norm – Planned leakage.
15	Possible leakage	Wdef	Actual size((Re-)Estimated size) x Defect rate of Norm – (Total actual weighted defects – Total actual Fixing defects)
16	Defect status (Used in Fsoft	%	Planned weighted defects to be found/ Actual weighted defects found.

#	Name	Unit	Description
	Insight: weekly/milestone reports)		

4.3 Defect Origin

Defect Origin indicates the actual process that caused the defect.

Following table is the list of defect origin:

#	Defect Origin	Description
1	Administration	Defects originate from activities that relate to Administration process.
2	Coding	Defects originate from either of the following code, debug activities.
3	Collaborator Management	Defects originate from activities that relate to Collaborator Management process.
4	Configuration Management	Defects originate from activities that relate to Configuration Management process. Examples: Defects from reviewing CM Plan, setting CM environments, etc.
5	Contract Management	Defects originate from activities that relate to Contract Management process.
6	Correction	Defects originate from activities that relate to Correction process.
7	Customer Support	Defects originate from activities that relate to Customer Support process.
8	Deployment	Defects originate from activities that relate to Deployment process.
9	Design	Defects occur in design documents, either ADD or HLD or DDD (LLD), mainly focus on logic of these documents. Defects come from reviewing or testing design documents/prototype or while reviewing code or test cases, found design errors.
10	Document	Defects occur in documents (SRS, design documents, test

#	Defect Origin	Description
	Control	plan, test cases, test report, etc.). Mainly these defects are about template, formatting, versioning (newest from QMS & wrong version increment), etc.
11	Facility Management	Defects originate from activities that relate to Facility Management process.
12	IS Management	Defects originate from activities that relate to IS Management process.
13	Internal Audit	Defects originate from activities that relate to Internal Audit process. These defects are called NCs. However, they are now logged to NCMS instead of DMS.
14	Management Review	Defects originate from activities that relate to Management Review process.
15	Other	Defects that appear to be unable to map with any other process.
16	Prevention	Defects originate from activities that relate to Prevention process.
17	Process Improvement	Defects originate from activities that relate to Process Improvement process.
18	Project Management	Defects originate from activities that relate to Project Management process.
19	Quality Control	Defects originate from activities that relate to Quality Control process.
20	Quality Planning	Defects originate from activities that relate to Quality Planning process.
21	Recruitment	Defects originate from activities that relate to Recruitment process.
22	Requirement	Defects occur in requirement documents, either URD, SRS, mainly focus on logic of these documents. Defects come from reviewing or testing requirement documents/prototype or while reviewing design, code or test cases, found requirement errors.
23	Retirement	Defects originate from activities that relate to Retirement

#	Defect Origin	Description
		process.
24	Staff Management	Defects originate from activities that relate to Staff Management process.
25	Student Management	Defects originate from activities that relate to Student Management process.
26	Subcontract Management	Defects originate from activities that relate to Subcontract Management process.
27	Technology Management	Defects originate from activities that relate to Technology Management process.
28	Test	Defects occur in test documents or testing activities (lack of test cases, tester misunderstands specs, tester does not follow test cases, incorrect test data creation, bugs in test scripts, etc.)
29	Training	Defects originate from activities that relate to Training process.

4.4 Severity

For defects found by review activities, there are 04 severities as follows:

#	Severity	Description	Weight	Example
1	Fatal	Major errors in documents that cause failure of the application or the building of the application	10	<ul style="list-style-type: none">– Misunderstanding major features of customer requirements, that causes rework of whole or major parts of application (for example: main functionalities, application environments, business rules, etc.)– Design does not cover major requirements (ADD & DB design); system architecture or database design is not support the building of application & maintainability– Test documents do not cover major requirement specifications

#	Severity	Description	Weight	Example
2	Serious	Major errors in documents that cause failure in functionalities or failure to achieve quality objectives	5	<ul style="list-style-type: none"> – Do not update related documents (design, test docs) when SRS/design is changed – Misunderstanding customer requirements that causes rework of design & coding on 01 or several complicated modules – Documents lack one or more customer requirements – Design is insufficient to create robust & reliable application – Design does not cover all detailed & possible situations that requirements describe (ADD & DB design) – Lack test cases for a module or several modules – Do not have test cases for abnormal cases – Incorrect information in reports caused intentionally

#	Severity	Description	Weight	Example
3	Medium	Minor errors in documents that cause problems during the building of the application or document rework	3	<ul style="list-style-type: none"> – Use wrong templates of project or supplied by customers – Spelling mistakes in Japanese documents, using wrong English words & grammar structures that make receivers easily misunderstand – Do not follow pre-defined document conventions of project – Misunderstanding customer requirements, that causes rework of design & coding on 01 or several simple modules – Documents lack some detailed descriptions for requirements – Design does not cover all detailed & possible situations that requirements describe (class & screen design) – Test cases do not cover all requirements & design specs but all requirements for test are mentioned – Do not have enough or suitable test cases for abnormal cases – Incorrect or old information in reports caused by mistakes

#	Severity	Description	Weight	Example
4	Cosmetic	Very minor defects, no way to affect the functionalities of the product but still cause rework of the documents	1	<ul style="list-style-type: none"> – Spelling mistakes in English documents (such as hyphenation, incorrect plural form, wrong grammar structures, lexical errors, etc.) but do not affect understanding of the receivers – MS Office document conventions (format such as font type, font weight, font size, subscript or superscript, page layout, etc.; typing rules such as spacing, hyphenation, parentheses, punctuation, capitalization, etc.; style such as multiple fonts or bullets at the similar places, different styles by different people, wrong headings, etc.) are not followed – Use out-of-date versions of templates – Do not use correct document naming conventions – Document layout does not support understanding easily

For defects found by testing activities, there are 04 severities as follows:

#	Severity	Description	Weight	Example
1	Fatal	<ul style="list-style-type: none"> – A major issue where a large piece of functionality or major system component is completely broken. – There is no workaround and testing cannot continue. 	10	<ul style="list-style-type: none"> – The system/ application crashes permanently. – Irrecoverable database corruption.
2	Serious	– Major function or	5	– Security: users belong role A

#	Severity	Description	Weight	Example
		system component does not work, work incorrectly or is documented incorrectly. – Security problem is assigned depending on priority of functions in the project.		can see/perform functions (menu item) of role B, etc.
3	Medium	Minor function does not work or works incorrectly or is documented incorrectly.	3	– Any special cases included invalid data, boundary value, etc. for major function returns incorrectly. – Redundant outputs – Performance effects
4	Cosmetic	Very minor defects, no way to affect the functionalities of the product.	1	– Typing mistakes – A spelling/grammatical error on a GUI screen/message. – Align text, fields, forms, labels. – Incorrect Tab index, set default button, set default cursor, short key, etc. – Coding standard: name of object, variables, comments, etc.

4.5 Priority

There are 04 priorities, depending on how urgent you rate the defect (need to fix early or may be fixed later).

#	Priority	Description
1	Immediately	Defect should be fixed right away or within 01 day after logging
2	High	Defect should be considered fixing within 02 - 04 days after logging

#	Priority	Description
3	Normal	Defect should be considered fixing within 05 - 08 days after logging
4	Low	Defect can be delayed (to be fixed later when appropriate)

4.6 Defect Type

This field is used to group defects by classifying types of problem. Defect Type is mandatory.

#	Type	Description/Type of content	Example
1	Coding	1.1 Register error	<p>- Code reviewer sees the problems on Transaction on handling "Transaction started for reading need not be committed as other methods can make use of it. It is done in addTask and updateTask."</p> <p>- Incorrect assignment: "Author wanted to assign the value of existing vector to another vector. The assigning is not done correctly. It creates a new vector of the existing vector size."</p> <p>- When does Unit testing the problem is Null Value acceptance: Need to check whether null values are allowed.</p>
		1.2 Command error	
		1.3 Compile error	
		1.4 Name / branch place error	
		1.5 Coding standard	
		1.6 Hard code	
		1.7 Redundancy code	
		1.8 Logic of code	
		1.9 Other error in code	
2	Functionality	2.1 Feature missing	
		2.2 Incomplete function	
		2.3 Wrong function	
3	User Interface	3.1 Layout error	Layout of application different with screen design like image, color...
		3.2 Label, message wrong	
		3.3 Position/Size wrong	
4	Document	4.1 Grammar error	

#	Type	Description/Type of content	Example
		4.2 Format/template wrong	
		4.3 Error in documentation	Didn't document correctly while grammatical still right (use wrong words, sentences used not described the correct purposes) ...
5	Design issues	5.1 Logic deployment error from function	
		5.2 Data flow error	
		5.3 Interface error between modules	
		5.4 Table design error	
		5.5 Domain design error	
6	Others	Not in any of the existing types.	Poor processing speed, error when running in other environments, ...

4.7 Defect logging for test project

Action	Defect Description	QC Activity	Defect Origin	Work Product	Severity	Defect Type
Test case creation	Format, template (layout, version, record of change, spelling, etc.)	Document Review	Document Control	Test case & test data	Cosmetic	Document
	Test case content (test condition, action, expected results, etc. is incorrect or lack)	Document Review	Requirement	Test case & test data	Medium	Functionality
	Test case does not cover all situations (lack of test cases)	Document Review	Requirement	Test case & test data	Medium	Functionality
	Redundant test cases (duplicate, incorrect test cases, etc.)	Document Review	Document Control	Test case & test data	Cosmetic	Document
Test data creation	Wrong test data (redundant, lack of test data or incorrect test data)	Document Review /Other review	Requirement	Test case & test data	Medium	Functionality
Test	Errors found when reviewing test scripts	Code review	Test	Test script	Medium	Functionality

Action	Defect Description	QC Activity	Defect Origin	Work Product	Severity	Defect Type
scripts/test program	Test scripts report wrong results	Document review	Test	Test script	Medium/Serious	Functionality
Test execution	Test environment setup (incorrect OS, browser, locale, etc.)	Integration Test/ System Test/ Regression test	Test/Configuration management	Test report	Medium	Functionality
	Do not follow test case/test procedure	Integration Test/ System Test/ Regression test	Test	Test report	Medium	Functionality
	Do not use correct test input	Integration Test/ System Test/ Regression test	Test	Test report	Medium	Functionality
	Misunderstand expected results	Integration Test/ System Test/ Regression test	Test	Test report	Medium	Functionality
	Do not execute test case(s)	Integration Test/ System Test/ Regression test	Test	Test report	Serious	Functionality

Action	Defect Description	QC Activity	Defect Origin	Work Product	Severity	Defect Type
Test report	Format, template (layout, version, record of change, spelling, etc.)	Document Review	Document Control	Test report	Medium	Document
	Test case is not executed/not passed but is reported as passed	Document Review	Test	Test report	Serious/ Medium	Document
	Test cases are not N/A as reported	Document Review	Test	Test report	Medium	Document

4.8 Relationship of fields in DMS

#	Parent	Child	Note
1	QC activities	Work products	Work product will be filter follow selected QC activities
2	Work products	Defect Origin	Defect origin will be filter follow selected Work products
3	Type of activity	QC activities	For each type of activities user can mapping with QC activities in DMS.

4.8.1 Type of Activity & QC Activity

#	Type of Activity	QC Activity
1	Review	<ul style="list-style-type: none"> - Document review - Code review - After release review - Prototype review - Other review
2	Test	<ul style="list-style-type: none"> - Unit test - Integration test - System test - Acceptance test - Regression test - After release test - Other test - Prototype test
3	Inspection	<ul style="list-style-type: none"> - Quality gate inspection - Final inspection - Unit Test inspection - Other inspection

#	Type of Activity	QC Activity
4	Audit	<ul style="list-style-type: none"> - Baseline audit - Other audit

4.8.2 Work Product & Defect Origin

(TBD)

4.8.3 QC Activity & Work Product

#	QC Activity	Work Product
1	Baseline audit	<ul style="list-style-type: none"> - CM Plan - Baseline Report - Project Database
2	Other audit	All products except products of Baseline audit
3	Document review	<ul style="list-style-type: none"> - Acceptance note - Architectural design - Baseline report - CM Plan - Coding convention - DP Report - Detailed Design - Handover Note - Installation manual - Integration Test case - Integration Test plan - Integration Test report - Test data - Meeting minutes - Project plan - Proposal

#	QC Activity	Work Product
		<ul style="list-style-type: none"> - Project record - Project report - SRS - Test case - Test Plan - Test Report - System Description - System Test case - System Test plan - System Test report - URD - Unit Test case - Unit Test plan - Unit Test report - Use case - User manual - WO
4	Code review	<ul style="list-style-type: none"> - Software package - Software module
5	After release review	All products
6	Prototype review	<ul style="list-style-type: none"> - Requirement prototype - Design prototype
7	Other review	All products
8	Unit test	<ul style="list-style-type: none"> - Software module - Test script - Database
9	Integration test	<ul style="list-style-type: none"> - Software package - Test script

#	QC Activity	Work Product
10	System test	<ul style="list-style-type: none"> - Database - Software package - Test script
11	Acceptance test	<ul style="list-style-type: none"> - Database - Software module - Software package - Test script
12	Regression test	<ul style="list-style-type: none"> - Database - Software module - Software package - Test script
13	After release test	<ul style="list-style-type: none"> - Database - Software module - Software package - Test script
14	Other test	<ul style="list-style-type: none"> - Database - Design prototype - Others - PCB - Plan - Record - Report - Requirement Prototype - Resource and environment - Review record
15	Prototype test	<ul style="list-style-type: none"> - Requirement prototype - Design prototype
16	Quality gate inspection	All products

#	QC Activity	Work Product
17	Final inspection	<ul style="list-style-type: none"> - Architectural design - Coding convention - Detailed Design - Design Prototype - Installation manual - Integration Test case - Integration test report - Test data - Project Plan - Project report - Proposal - Release Note - Requirement Prototype - SRS - Test script - Test Plan - Test Report - Software package - System Description - System Test case - System test report - Unit Test case - Unit Test report - Use case - User manual
18	Other inspection	All products
19	UT inspection	<ul style="list-style-type: none"> - Software module - Test script

#	QC Activity	Work Product
		<ul style="list-style-type: none">- Test data- Unit Test case- Unit test plan- Unit Test report- Database

Approver	Reviewer	Creator
Nguyen Lam Phuong	Nguyen Van Anh	Ho Huyen Nga