您的潜力，我们的动力

Microsoft®
微软（中国）有限公司

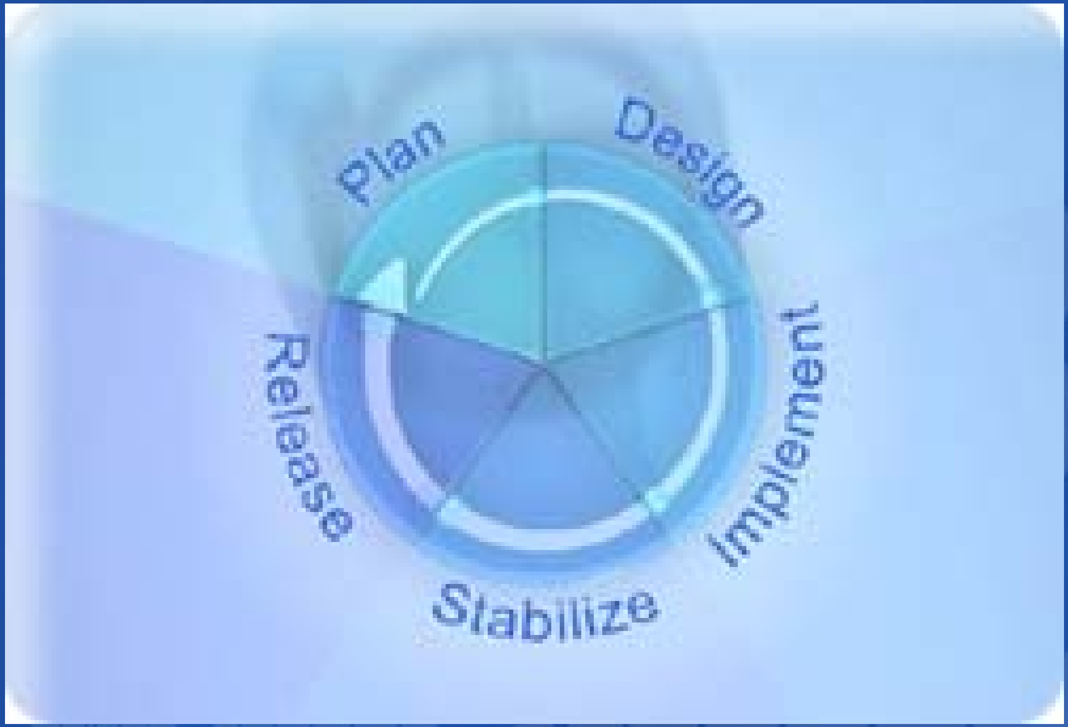
PCM系列之三

没有执行力就没有竞争力

王洪超
开发合作部
微软(中国)有限公司

王晴
开发合作部
微软(中国)有限公司

PCM回顾


Plan
Design
Implement
Stabilize
Release

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实现阶段

msdn

MSDN Webcasts

微软的秘密武器

- 三大流程
  - 源代码控制
  - 每日构造
  - Bug管理
- 七大服务器
  - 源代码服务器
  - Bug数据库
  - 构造服务器
  - 发布服务器
  - 电子邮件服务器
  - 团队协作平台
  - 测试用例管理工具

为什么需要源代码控制

- 缺少源代码控制工具而引起的问题
  - 最新版本的源代码在谁的机器上？
  - 多人修改一个文件时，有些人的修改被抹掉了
  - 昨天的修改引发了新缺陷，但不知道做了哪些修改
  - 上周五的代码肯定能运行，但没法退回去了
  - 一不小心把有用的GetXYZ()函数删了并存盘了！
  - 目前已经在写3.0的代码了，突然要为1.0版本发布一个1.0a
  - B客户需要一个定制的产品，而且要随通用版不断更新
  - 昨天我修改了一个文件，但我想不起来为什么要修改了
  - 今天系统出错了，昨天是哪个该死的改了Abc.Cpp文件？
  - 上个月发布给A用户的试用版是用那个版本的源码编译的？

源代码控制的基本操作

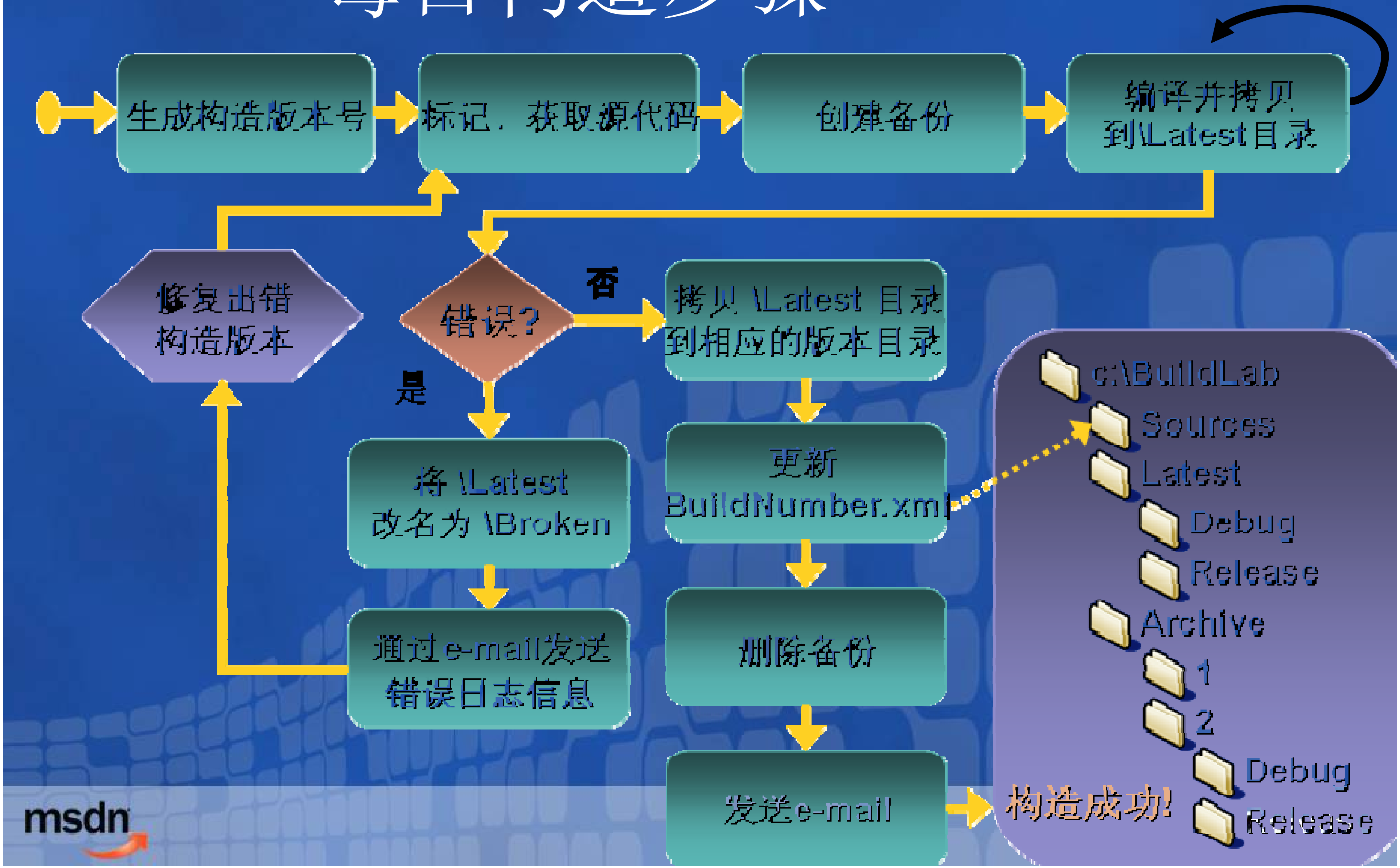
- 最常用操作:
  - Add File(s)
  - Check-In
  - Check-Out
  - Get Latest Version
- 其他
  - Roll-Back
  - Show History
  - Compare
  - Label

微软团队开发环境之每日构造

- 每日构造解决的问题
  - 客户突然访问/领导临时察看工作
  - 产品偏离客户的期望
  - 项目经理/成员不了解整体进度
  - 测试人员无法编译源代码
  - 模块/子系统集成失败
  - 错误没有及时发现
- 每日构造的意义
  - 统一的视图
  - 展示最新进展
  - 测试的基础

Debug & Release

每日构造步骤



生成构造版本号

标记，获取源代码

创建备份

编译并拷贝到\Latest目录

错误?

否

拷贝\Latest目录到相应的版本目录

更新BuildNumber.xml

删除备份

发送e-mail

构造成功!

是

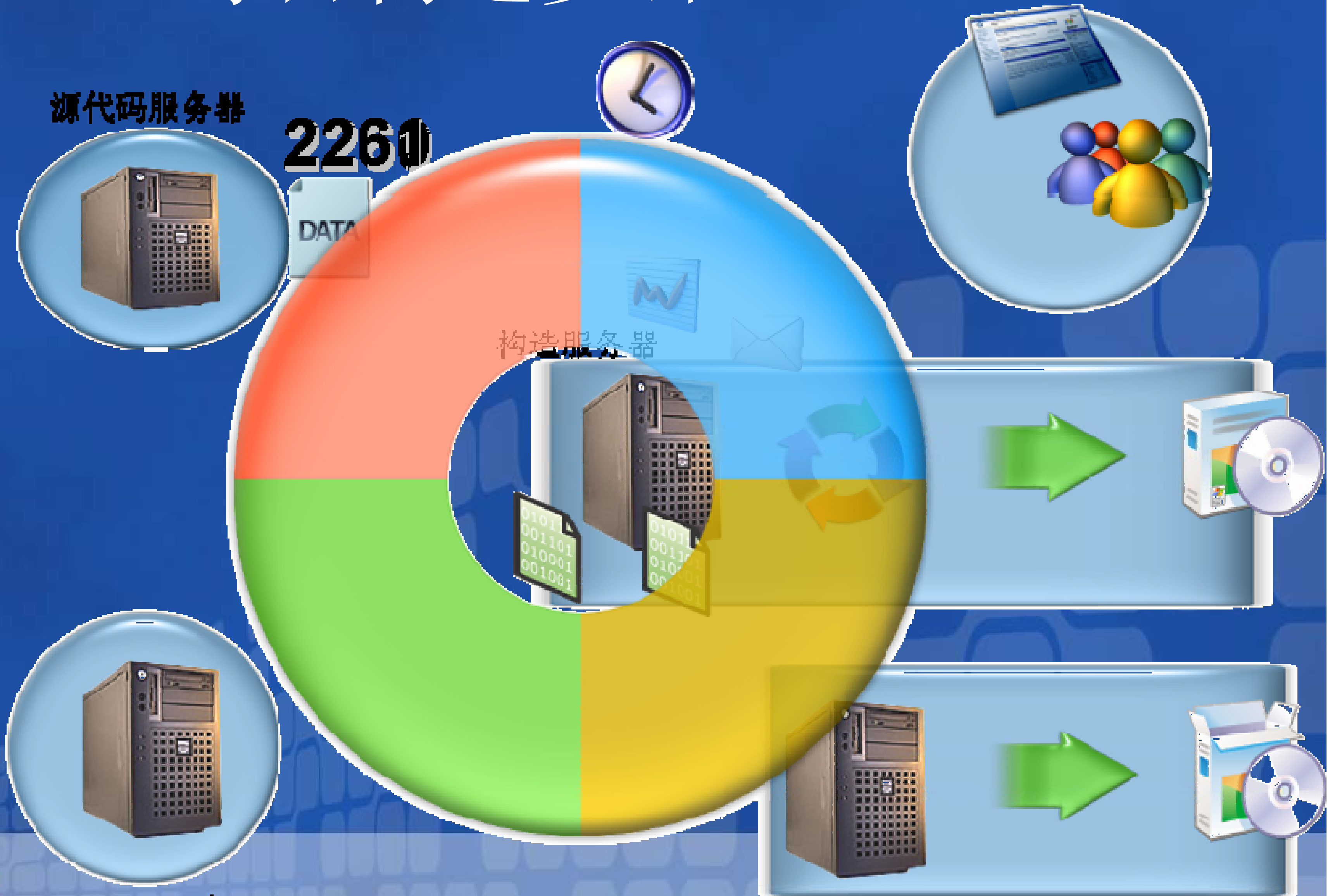
将\Latest改名为\Broken

通过e-mail发送错误日志信息

修复出错构造版本

- c:\BuildLab
  - Sources
  - Latest
    - Debug
    - Release
  - Archive
    - 1
    - 2
      - Debug
      - Release

每日构造步骤



源代码服务器

构造服务器

BVT测试服务器

发布服务器

Rainbow Team Build Schedule *June 04*

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
May 31	June 1 Build 2241	2 Build 2242	3 Build 2243	4 Build 2244 Build 2244.1	5 Build 2245	6
7	8 Build 2246	9 Build 2247	10 Build 2248	11 Build 2249	12 Build 2250	13
14	15 Build 2251	16 Build 2252	17 Build 2253	18 Build 2254	19 Build 2255	20
21	22 Build 2256	23 Build 2257	24 Build 2258	25 Build 2259	26 Build 2260	27
28	29 Build 2261	30	July 1	2	3	4

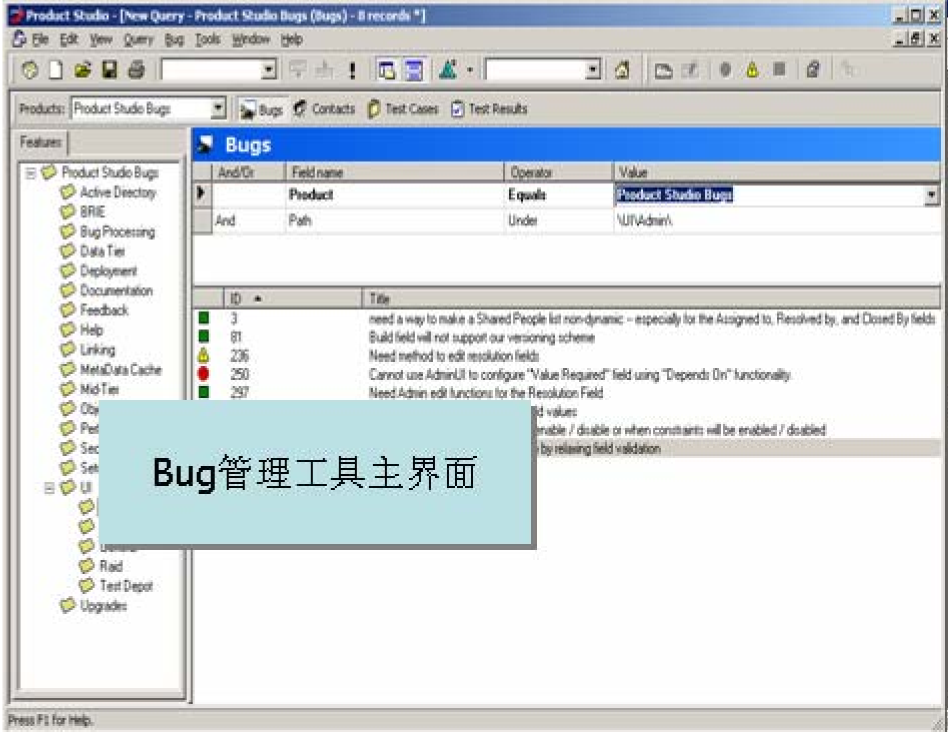
手工Build

每日构造与BVT测试

- BVT测试是冒烟测试的一种
- 一般在Build生成后进行的自动测试

微软团队开发环境之
Bug 管理

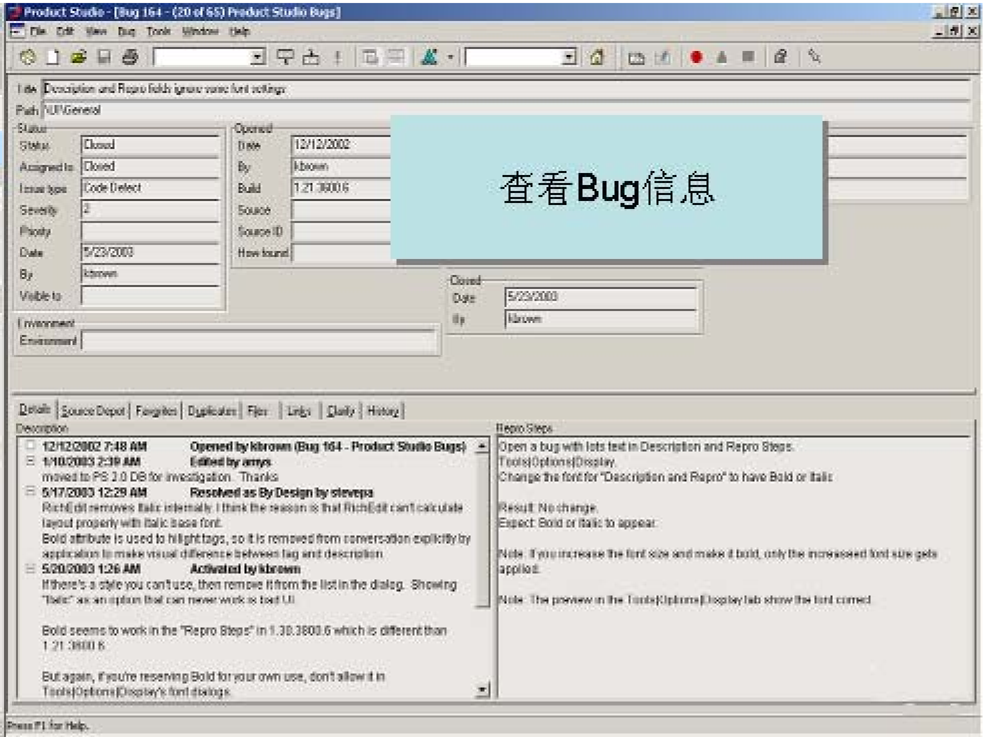
- 对每一个Bug进行跟踪，避免遗漏
- 对产品质量的进展进行有效的跟踪
- 量化产品的质量和开发团队成员的绩效，便于有效的管理


Product Studio - [New Query - Product Studio Bugs (Bugs) - 8 records *]
Products: Product Studio Bugs
Bugs
Contacts
Test Cases
Test Results
Features
Product Studio Bugs
Active Directory
BRIE
Bug Processing
Data Tier
Deployment
Documentation
Feedback
Help
Linking
MetaData Cache
Mid-Tier
UI
Raid
Test Depot
Upgrades
Press F1 for Help.

And/Or	Field name	Operator	Value
	Product	Equals	Product Studio Bugs
And	Path	Under	\UI\Admin\

	ID	Title
🟩	3	need a way to make a Shared People list non-dynamic – especially for the Assigned to, Resolved by, and Closed By fields
🟩	81	Build field will not support our versioning scheme
△	236	Need method to edit resolution fields
●	250	Cannot use AdminUI to configure "Value Required" field using "Depends On" functionality.
🟩	297	Need Admin edit functions for the Resolution Field

Bug管理工具主界面


Product Studio - [Bug 164 - (20 of 65) Product Studio Bugs]
Details
Source Depot
Forgotten
Duplicates
Files
Links
Clarify
History
Press F1 for Help.

Title: Description and Repro fields ignore some font settings
Path: \UI\General
Status: Closed
Assigned to: Closed
Issue type: Code Defect
Severity: 2
Date: 5/23/2003
By: kbrown
Opened Date: 12/12/2002
By: kbrown
Build: 1.21.3600.6
Closed Date: 5/23/2003
By: Kbrown

Description

12/12/2002 7:48 AM **Opened by kbrown (Bug 164 - Product Studio Bugs)**

1/10/2003 2:39 AM **Edited by amys**
moved to PS 2.0 DB for investigation. Thanks

5/17/2003 12:29 AM **Resolved as By Design by stevepa**
RichEdit removes Italic internally. I think the reason is that RichEdit can't calculate layout properly with Italic base font.
Bold attribute is used to hilight tags, so it is removed from conversation explicitly by application to make visual difference between tag and description.

5/20/2003 1:26 AM **Activated by kbrown**
If there's a style you can't use, then remove it from the list in the dialog. Showing "Italic" as an option that can never work is bad UI.

Bold seems to work in the "Repro Steps" in 1.30.3800.6 which is different than 1.21.3600.6

But again, if you're reserving Bold for your own use, don't allow it in Tools|Options|Display's font dialogs.

Repro Steps

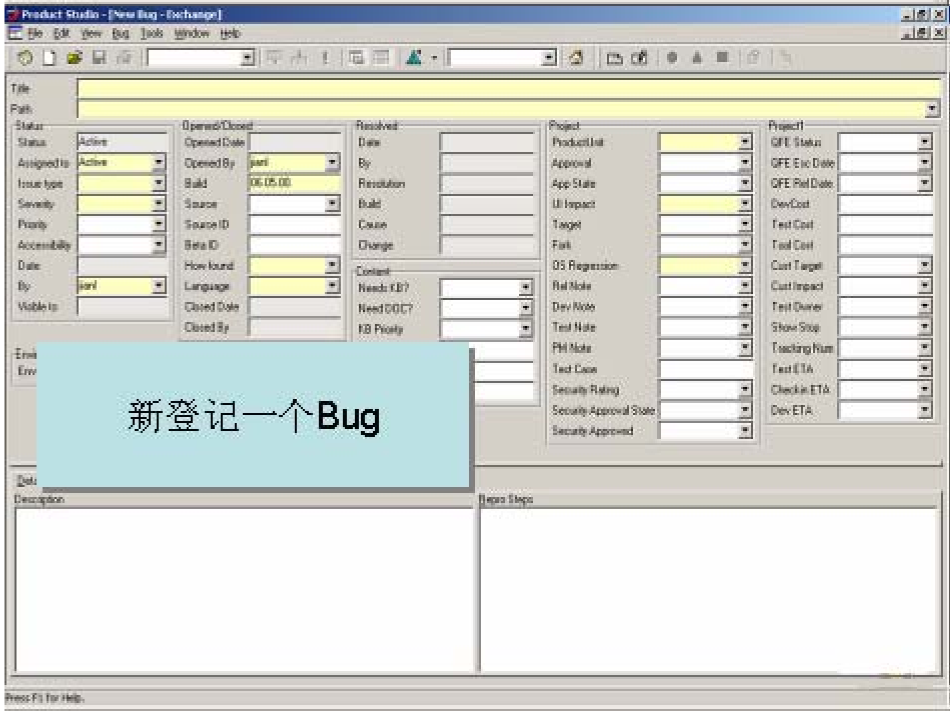
Open a bug with lots text in Description and Repro Steps.
Tools|Options|Display.
Change the font for "Description and Repro" to have Bold or Italic

Result: No change.
Expect: Bold or Italic to appear.

Note: If you increase the font size and make it bold, only the increased font size gets applied.

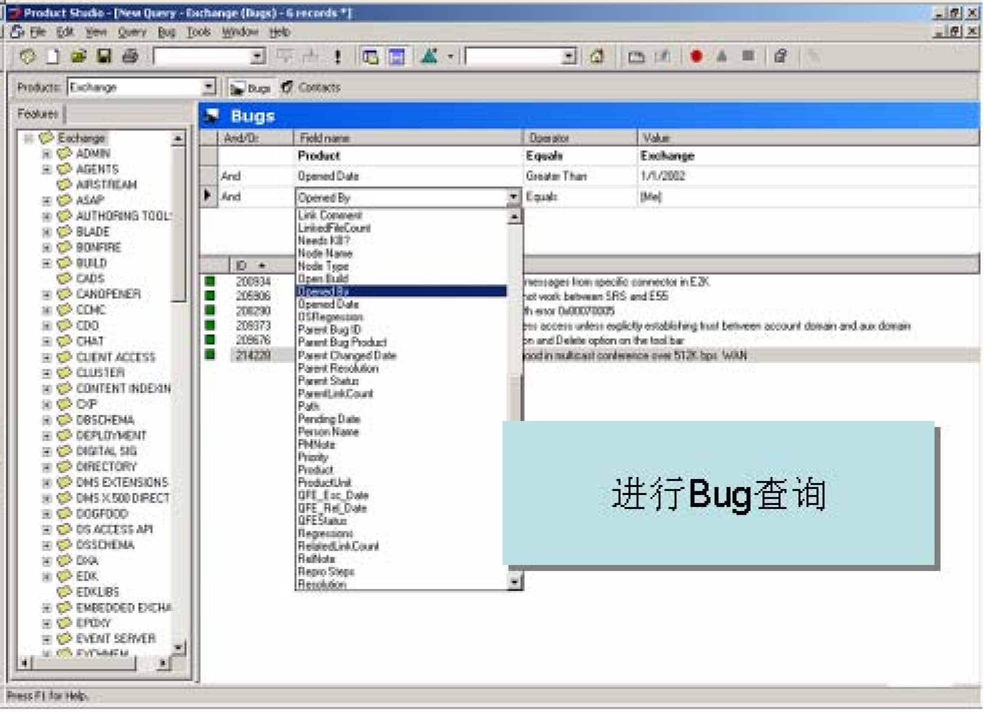
Note: The preview in the Tools|Options|Display tab show the font correct.

查看Bug信息


Product Studio - [New Bug - Exchange]
Title
Path
Status
Assigned to
Issue type
Severity
Priority
Accessibility
Date
By
Visible to
Opened/Closed
Opened Date
Opened By
Build
Source
Source ID
Beta ID
How found
Language
Closed Date
Closed By
Resolved
Date
By
Resolution
Build
Cause
Change
Content
Needs KB?
Need DOC?
KB Priority
Project
ProductUnit
Approval
App State
UI Impact
Target
Fork
DS Regression
Rel Note
Dev Note
Test Note
PM Note
Test Case
Security Rating
Security Approval State
Security Approved
Project1
QFE Status
QFE Esc Date
QFE Rel Date
DevCost
Test Cost
Tool Cost
Cust Target
Cust Impact
Test Owner
Show Stop
Tracking Num
Test ETA
Checkin ETA
Dev ETA
Description
Repro Steps
Press F1 for Help.

Status: Active
Assigned to: Active
By: jianl
Opened By: jianl
Build: 06.05.00

新登记一个Bug

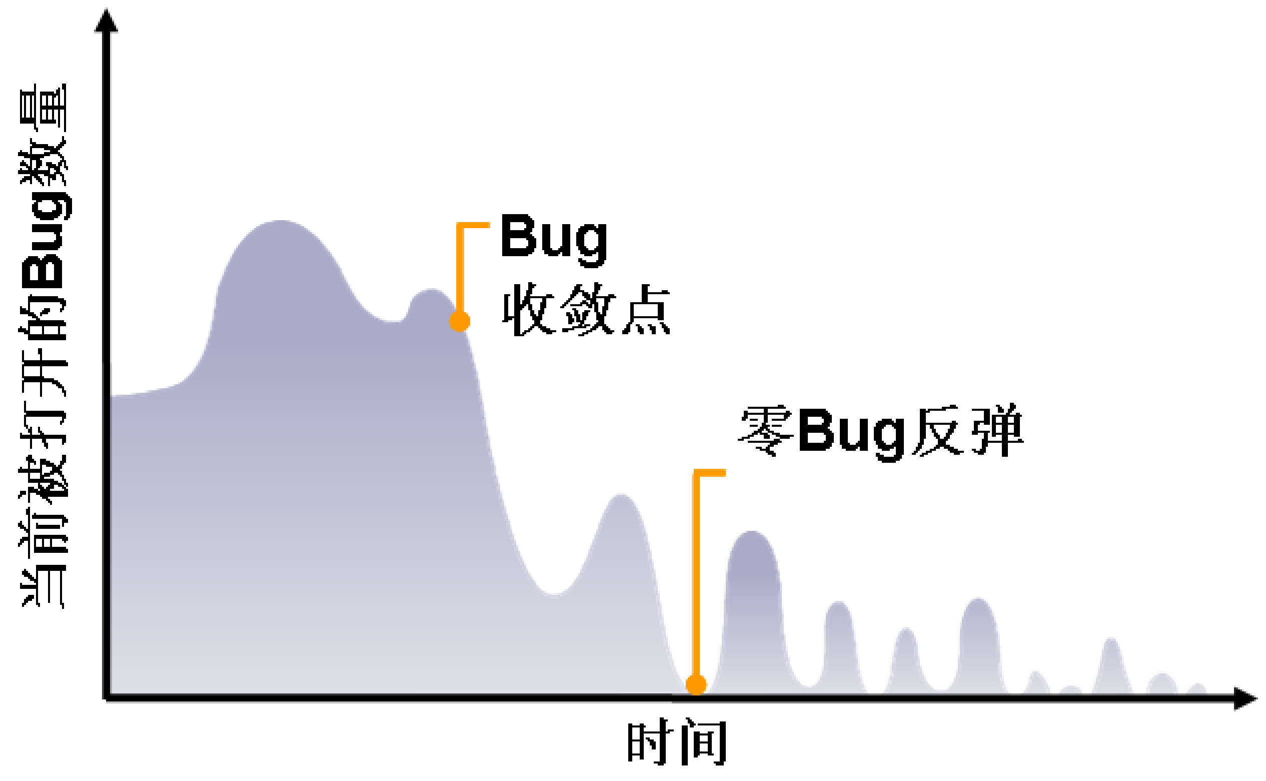

Product Studio - [New Query - Exchange (Bugs) - 6 records *]
Products: Exchange
Bugs
Contacts
Features
Exchange
ADMIN
AGENTS
AIRSTREAM
ASAP
AUTHORING TOOLS
BLADE
BONFIRE
BUILD
CADS
CANOPENER
CDMC
CDO
CHAT
CLIENT ACCESS
CLUSTER
CONTENT INDEXING
CXP
DBSCHEMA
DEPLOYMENT
DIGITAL SIG
DIRECTORY
DMS EXTENSIONS
DMS X.500 DIRECT
DOGFOOD
DS ACCESS API
DSSCHEMA
DXA
EDK
EDKLIBS
EMBEDDED EXCHA
EPOXY
EVENT SERVER
Link Comment
LinkedFileCount
Needs KB?
Node Name
Node Type
Open Build
Opened By
Opened Date
OSRegression
Parent Bug ID
Parent Bug Product
Parent Changed Date
Parent Resolution
Parent Status
ParentLinkCount
Path
Pending Date
Person Name
PMNote
Priority
Product
ProductUnit
QFE_Esc_Date
QFE_Rel_Date
QFEStatus
Regressions
RelatedLinkCount
RelNote
Repro Steps
Resolution
Press F1 for Help.

And/Or	Field name	Operator	Value
	Product	Equals	Exchange
And	Opened Date	Greater Than	1/1/2002
And	Opened By	Equals	[Me]

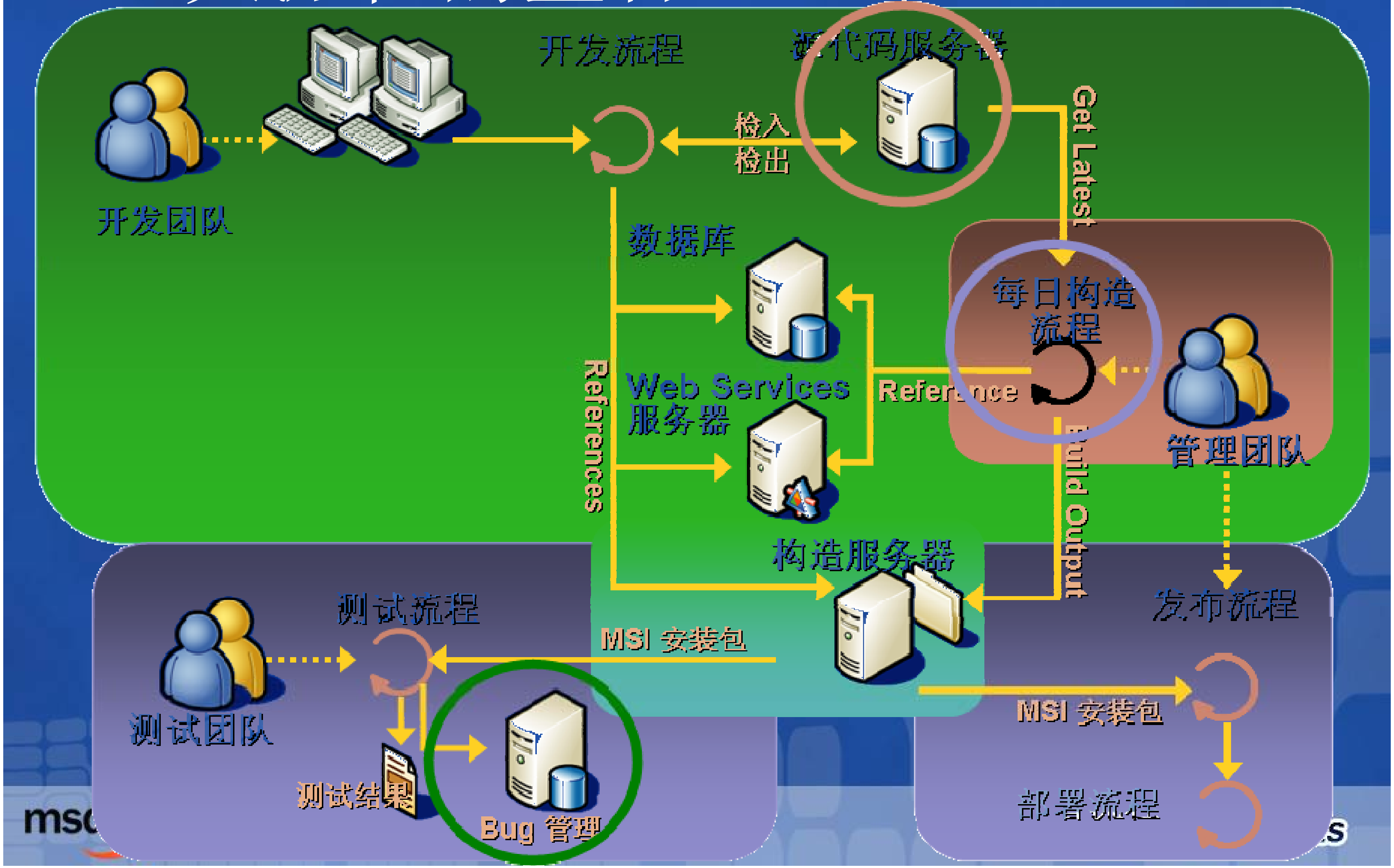
	ID	Title
🟩	200934	messages from specific connector in E2K
🟩	205906	not work between SRS and E55
🟩	206290	th error 0x80070005
🟩	208373	ss access unless explicitly establishing trust between account domain and aux domain
🟩	208676	on and Delete option on the tool bar
🟩	214220	ood in multicast conference over 512K bps WAN

进行Bug查询

零Bug反弹：
产品发布指日可待

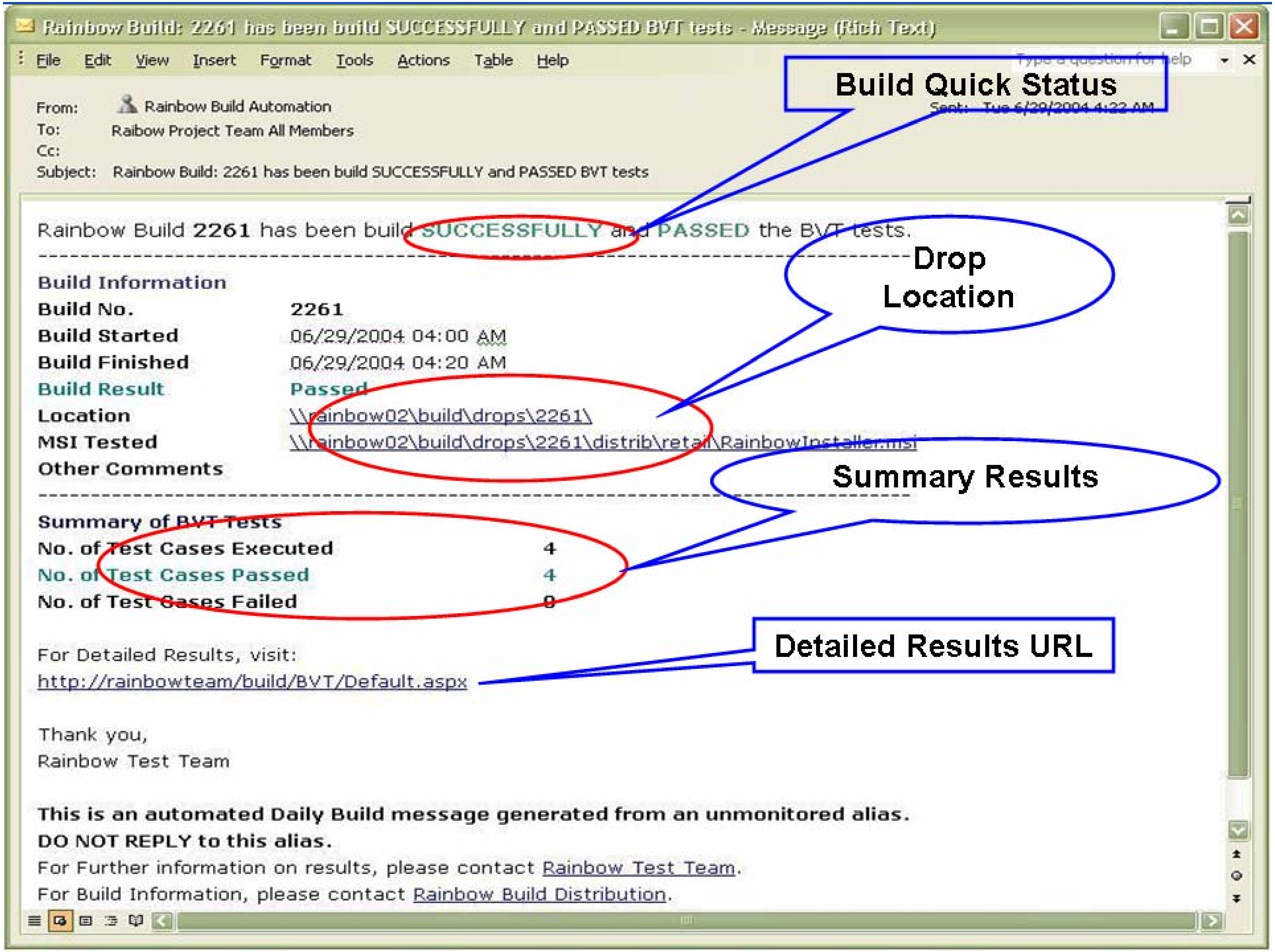


三大流程的整合


开发团队
开发流程
源代码服务器
检入
检出
Get Latest
数据库
Web Services
服务器
References
每日构造
流程
Reference
管理团队
Build Output
构造服务器
测试流程
测试团队
MSI 安装包
测试结果
Bug 管理
发布流程
MSI 安装包
部署流程

开发人员的一天从哪里开始？

- 答案：开发人员的一天从Daily Build开始
- 开发人员上班的第一件事儿就是查看Daily Build的结果，担心由于自己昨天的代码Check-in，造成Build Broken


Rainbow Build: 2261 has been build SUCCESSFULLY and PASSED BVT tests - Message (Rich Text)
File Edit View Insert Format Tools Actions Table Help
Type a question for help
Build Quick Status
Drop Location
Summary Results
Detailed Results URL

From: Rainbow Build Automation
To: Raibow Project Team All Members
Cc:
Subject: Rainbow Build: 2261 has been build SUCCESSFULLY and PASSED BVT tests
Sent: Tue 6/29/2004 4:22 AM

Rainbow Build **2261** has been build SUCCESSFULLY and PASSED the BVT tests.

Build Information

Build No.	**2261**
Build Started	06/29/2004 04:00 AM
Build Finished	06/29/2004 04:20 AM
Build Result	**Passed**
Location	\\rainbow02\build\drops\2261\
MSI Tested	\\rainbow02\build\drops\2261\distrib\retail\RainbowInstaller.msi
Other Comments	

Summary of BVT Tests	
No. of Test Cases Executed	**4**
No. of Test Cases Passed	**4**
No. of Test Cases Failed	**0**

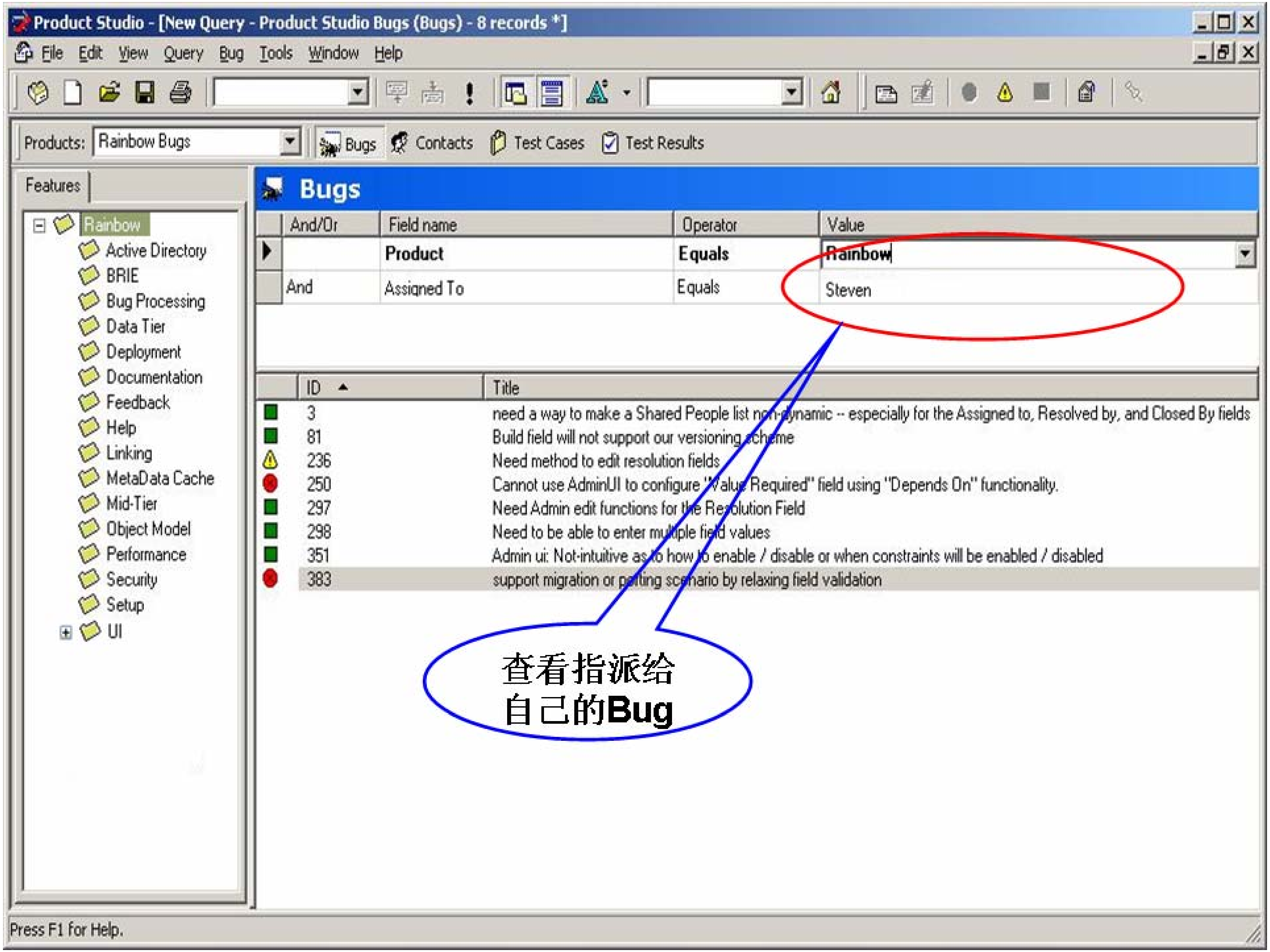
For Detailed Results, visit:
http://rainbowteam/build/BVT/Default.aspx

Thank you,
Rainbow Test Team

This is an automated Daily Build message generated from an unmonitored alias.
DO NOT REPLY to this alias.
For Further information on results, please contact Rainbow Test Team.
For Build Information, please contact Rainbow Build Distribution.

经历对Build的提心吊胆之后，第一件事做什么？

- 答案：打开Bug管理工具，查看指定给自己的Bug，解决高优先度的Bug。因为质量重于新功能


Product Studio - [New Query - Product Studio Bugs (Bugs) - 8 records *]
File Edit View Query Bug Tools Window Help
Products: Rainbow Bugs
Bugs
Contacts
Test Cases
Test Results
Features
Rainbow
Active Directory
BRIE
Bug Processing
Data Tier
Deployment
Documentation
Feedback
Help
Linking
MetaData Cache
Mid-Tier
Object Model
Performance
Security
Setup
UI
Bugs
Press F1 for Help.

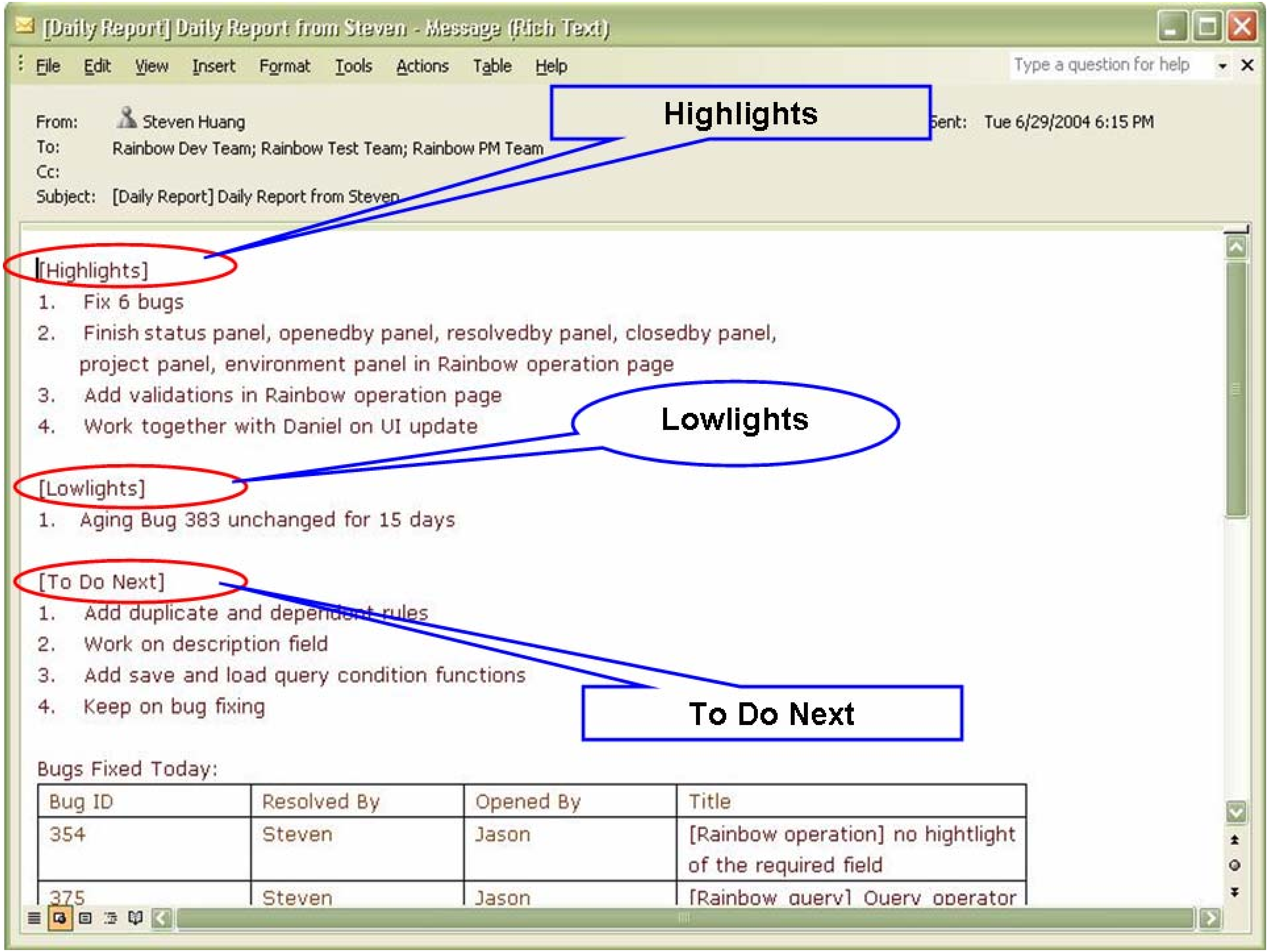
And/Or	Field name	Operator	Value
	Product	**Equals**	**Rainbow**
And	Assigned To	Equals	Steven

	ID	Title
🟩	3	need a way to make a Shared People list non-dynamic -- especially for the Assigned to, Resolved by, and Closed By fields
🟩	81	Build field will not support our versioning scheme
⚠	236	Need method to edit resolution fields
●	250	Cannot use AdminUI to configure "Value Required" field using "Depends On" functionality.
🟩	297	Need Admin edit functions for the Resolution Field
🟩	298	Need to be able to enter multiple field values
🟩	351	Admin ui: Not-intuitive as to how to enable / disable or when constraints will be enabled / disabled
●	383	support migration or porting scenario by relaxing field validation

查看指派给
自己的**Bug**

接下来，开发人员会…

- 从源代码管理工具中Check out代码
- 修改代码（解决Bug或实现新功能）
- 取得源代码管理工具中最新变化，在本机Build和单元测试
- 请开发组同事作Code Review
- Check in代码
- 在Bug管理工具中修改Bug的状态
- 开发人员以一封Daily Report结束一天的工作


[Daily Report] Daily Report from Steven - Message (Rich Text)
File
Edit
View
Insert
Format
Tools
Actions
Table
Help
Type a question for help
Highlights
Lowlights
To Do Next

From: Steven Huang
Sent: Tue 6/29/2004 6:15 PM
To: Rainbow Dev Team; Rainbow Test Team; Rainbow PM Team
Cc:
Subject: [Daily Report] Daily Report from Steven

[Highlights]

1. Fix 6 bugs
2. Finish status panel, openedby panel, resolvedby panel, closedby panel, project panel, environment panel in Rainbow operation page
3. Add validations in Rainbow operation page
4. Work together with Daniel on UI update

[Lowlights]

1. Aging Bug 383 unchanged for 15 days

[To Do Next]

1. Add duplicate and dependent rules
2. Work on description field
3. Add save and load query condition functions
4. Keep on bug fixing

Bugs Fixed Today:

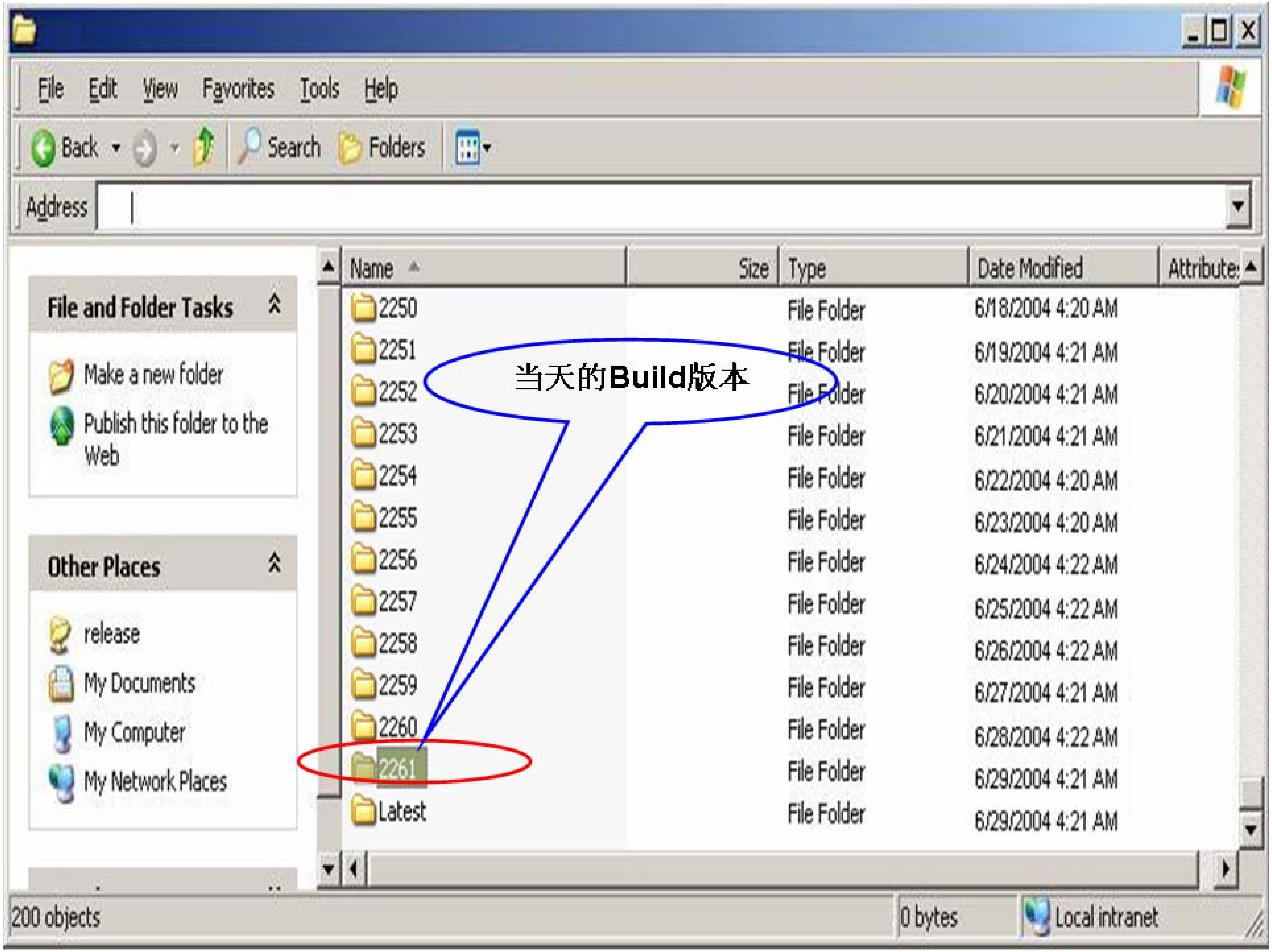
Bug ID	Resolved By	Opened By	Title
354	Steven	Jason	[Rainbow operation] no hightlight of the required field
375	Steven	Jason	[Rainbow query] Query operator

测试人员第一件事做什么？

- 答案：打开Bug管理工具，查看指定给自己的Bug，验证已解决的Bug

接下来，测试人员会…

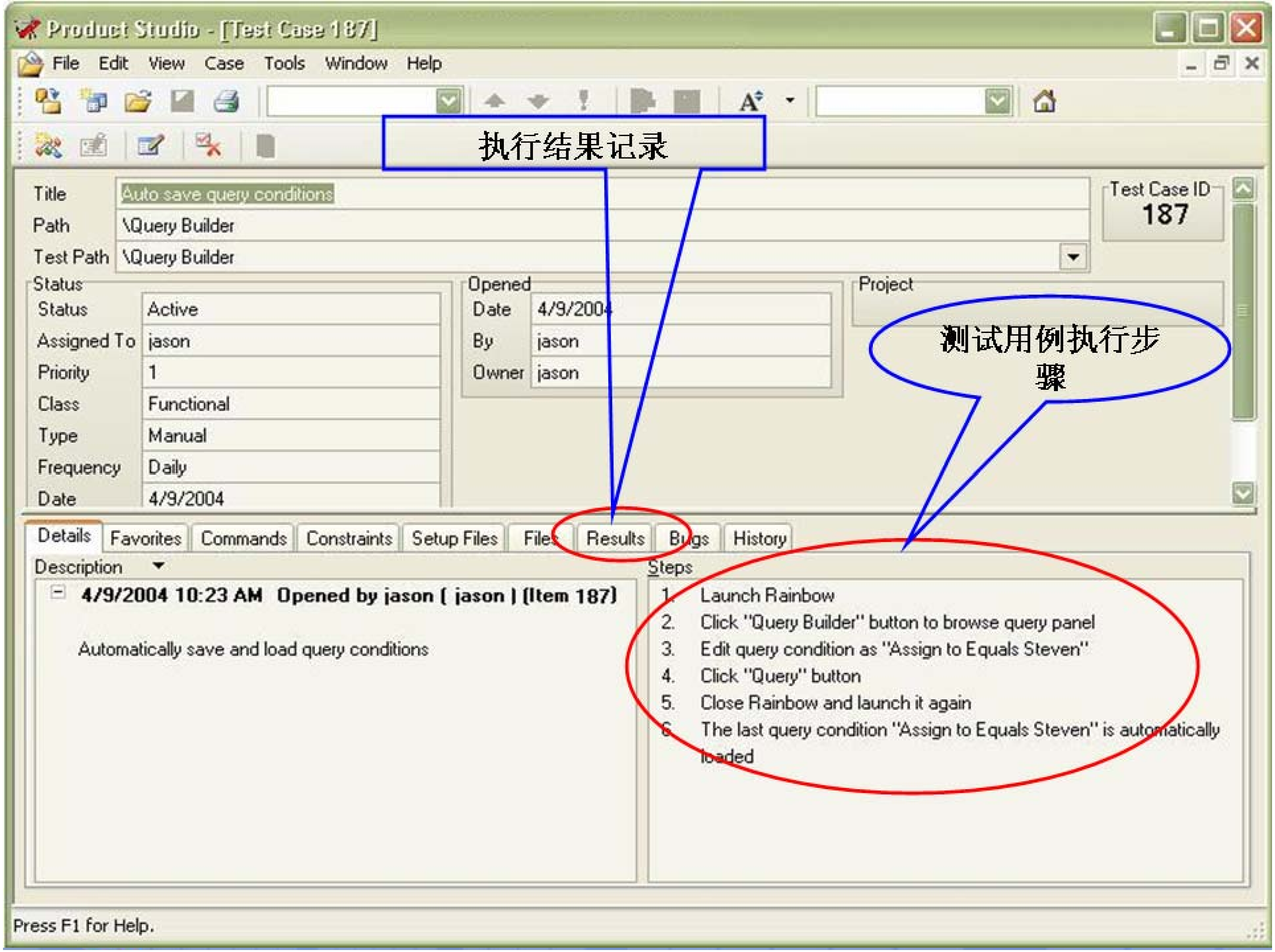
- 从发布服务器上取得当天的Build版本，根据测试用例检验当天的Build
- 在Bug管理工具中登记新发现的Bug，等待开发人员解决


File
Edit
View
Favorites
Tools
Help
Back
Search
Folders
Address
File and Folder Tasks
Make a new folder
Publish this folder to the Web
Other Places
release
My Documents
My Computer
My Network Places

当天的Build版本

Name	Size	Type	Date Modified	Attributes
2250		File Folder	6/18/2004 4:20 AM	
2251		File Folder	6/19/2004 4:21 AM	
2252		File Folder	6/20/2004 4:21 AM	
2253		File Folder	6/21/2004 4:21 AM	
2254		File Folder	6/22/2004 4:20 AM	
2255		File Folder	6/23/2004 4:20 AM	
2256		File Folder	6/24/2004 4:22 AM	
2257		File Folder	6/25/2004 4:22 AM	
2258		File Folder	6/26/2004 4:22 AM	
2259		File Folder	6/27/2004 4:21 AM	
2260		File Folder	6/28/2004 4:22 AM	
2261		File Folder	6/29/2004 4:21 AM	
Latest		File Folder	6/29/2004 4:21 AM	

200 objects
0 bytes
Local intranet


Product Studio - [Test Case 187]
File Edit View Case Tools Window Help
执行结果记录
测试用例执行步骤
Details Favorites Commands Constraints Setup Files Files Results Bugs History
Press F1 for Help.

Title: Auto save query conditions
Path: \Query Builder
Test Path: \Query Builder
Test Case ID: 187

Status
Status: Active
Assigned To: jason
Priority: 1
Class: Functional
Type: Manual
Frequency: Daily
Date: 4/9/2004

Opened
Date: 4/9/2004
By: jason
Owner: jason

Project

Description

4/9/2004 10:23 AM Opened by jason (jason) (Item 187)

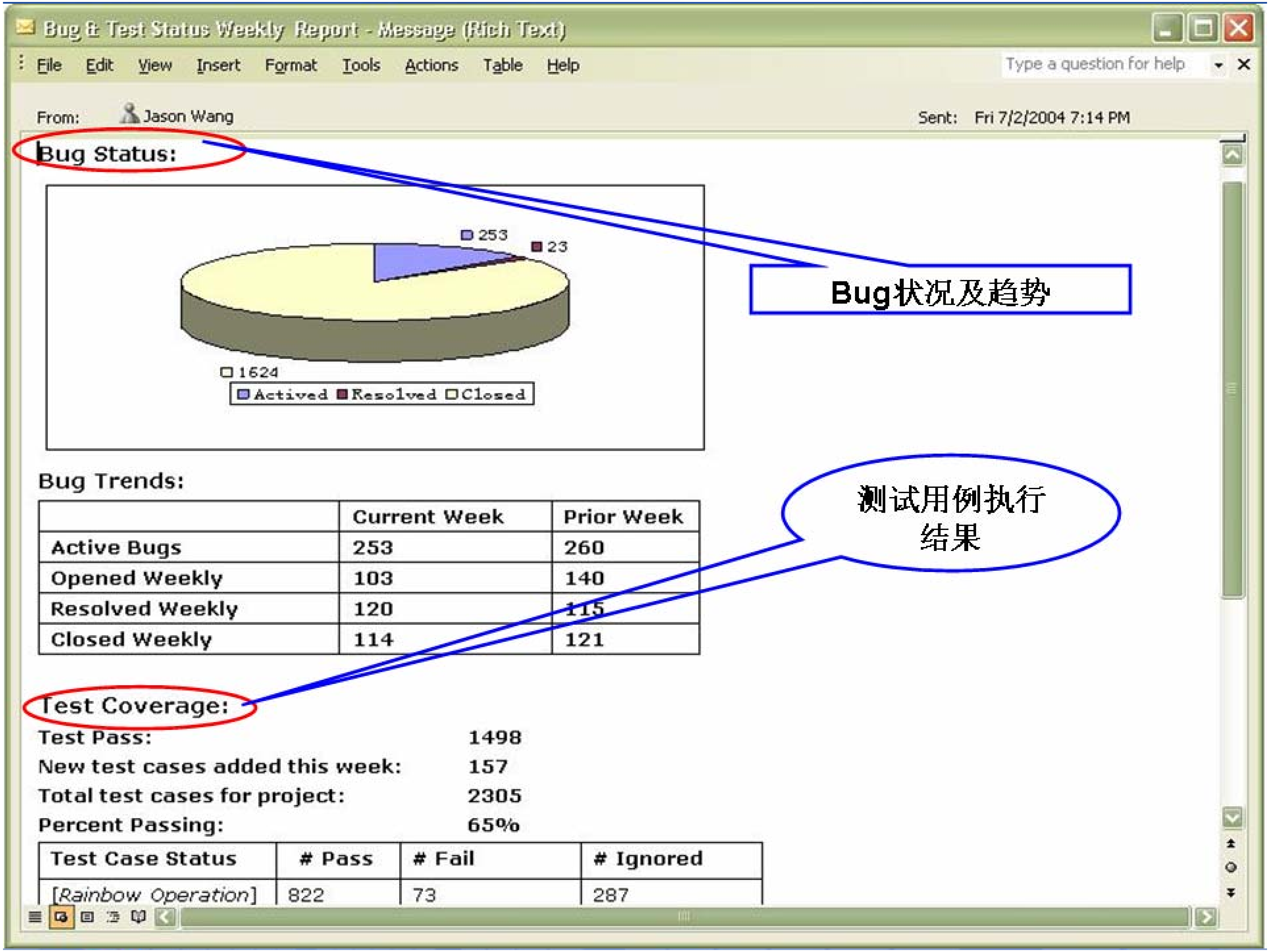
Automatically save and load query conditions

Steps

1. Launch Rainbow
2. Click "Query Builder" button to browse query panel
3. Edit query condition as "Assign to Equals Steven"
4. Click "Query" button
5. Close Rainbow and launch it again
6. The last query condition "Assign to Equals Steven" is automatically loaded

下班前，测试人员会…

- 发送当天或者一周的Bug报告和测试用例报告


Bug & Test Status Weekly Report - Message (Rich Text)
File Edit View Insert Format Tools Actions Table Help
Type a question for help
253
23
1624
Actived Resolved Closed

From: Jason Wang

Sent: Fri 7/2/2004 7:14 PM

Bug Status:

Bug状况及趋势

Bug Trends:

	Current Week	Prior Week
Active Bugs	253	260
Opened Weekly	103	140
Resolved Weekly	120	115
Closed Weekly	114	121

测试用例执行结果

Test Coverage:

Test Pass:	1498
New test cases added this week:	157
Total test cases for project:	2305
Percent Passing:	65%

Test Case Status	# Pass	# Fail	# Ignored
[Rainbow Operation]	822	73	287

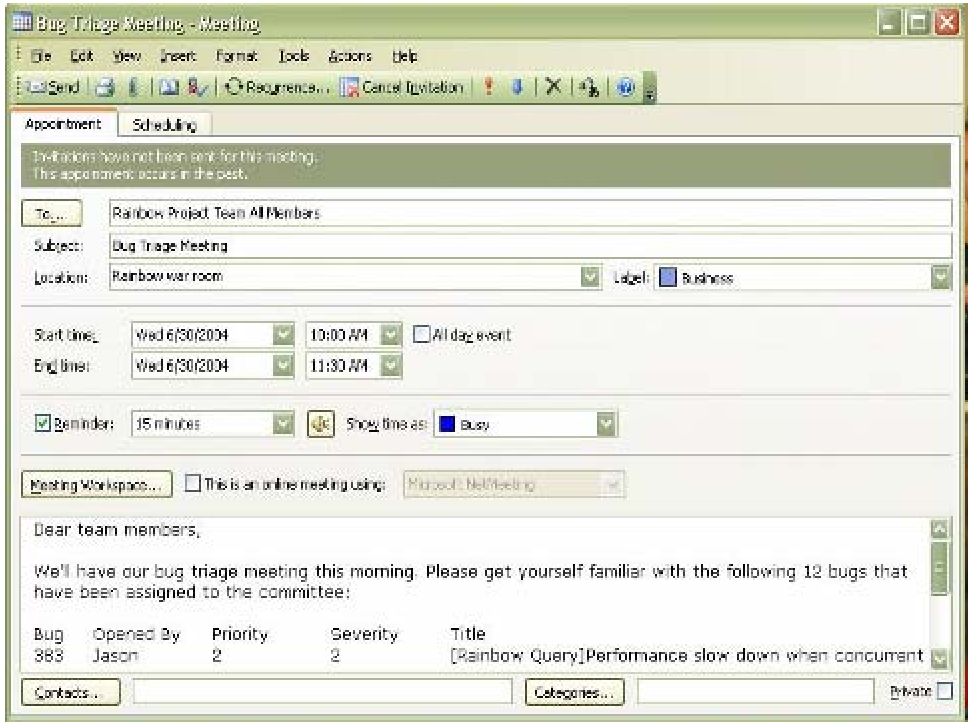
程序经理的工作

- 主持Bug专家会诊
- 更新项目的计划、日程表、产品规格书、风险控制列表
- 发送Status Report
- ……

PM is the communication hub!

程序经理的工作

- 主持Bug专家会诊
- 更新项目的计划、日程表、产品规格书、风险控制列表
- 提交Status Report


Bug Triage Meeting - Meeting
File
Edit
View
Insert
Format
Tools
Actions
Help
Send
Recurrence...
Cancel Invitation
Appointment
Scheduling
To...
Meeting Workspace...
Contacts...
Categories...

Invitations have not been sent for this meeting.
This appointment occurs in the past.

To...: Rainbow Project Team All Members
Subject: Bug Triage Meeting
Location: Rainbow war room
Label: Business
Start time: Wed 6/30/2004 10:00 AM ☐ All day event
End time: Wed 6/30/2004 11:30 AM
☑ Reminder: 15 minutes Show time as: Busy
☐ This is an online meeting using: Microsoft NetMeeting

Dear team members,

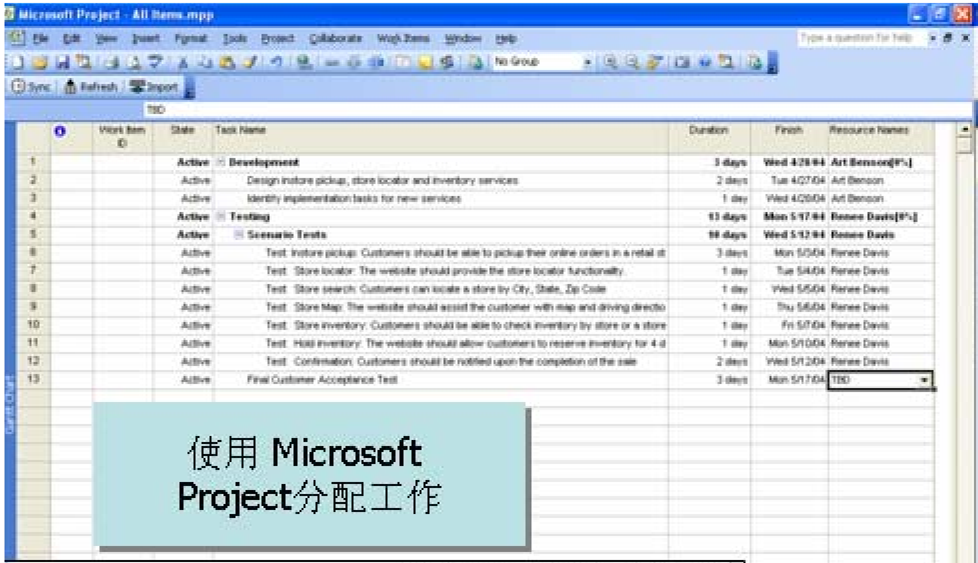
We'll have our bug triage meeting this morning. Please get yourself familiar with the following 12 bugs that have been assigned to the committee:

Bug	Opened By	Priority	Severity	Title
383	Jason	2	2	[Rainbow Query]Performance slow down when concurrent

Private ☐

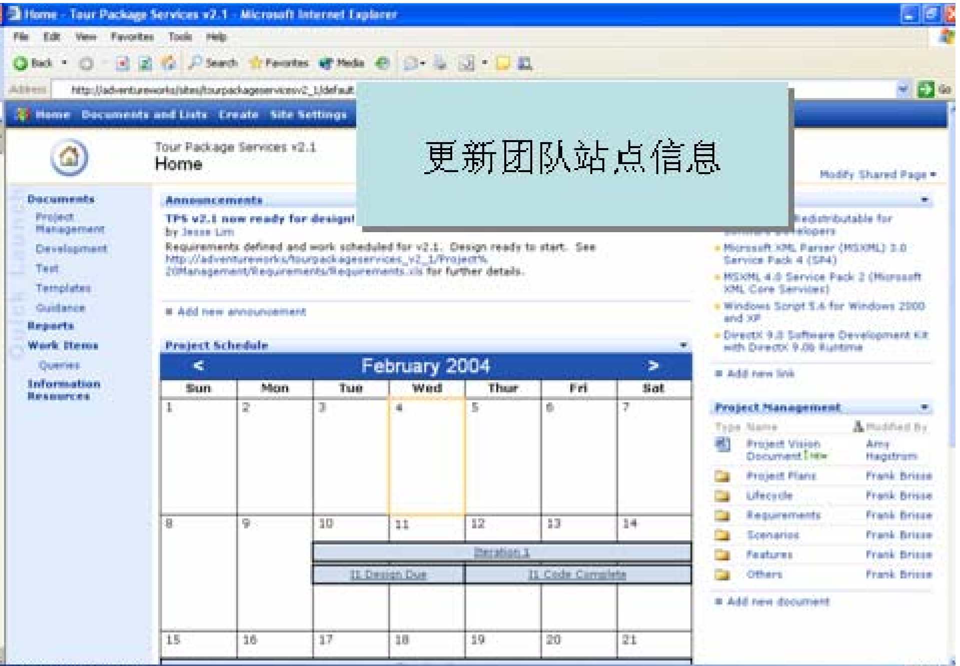
程序经理的工作

- 主持Bug专家会诊
- 更新项目的计划、日程表、产品规格书、风险控制列表
- 提交Status Report


Microsoft Project - All Items.mpp
File Edit View Insert Format Tools Project Collaborate Work Items Window Help
No Group
Sync Refresh Import
TBD

	Work Item ID	State	Task Name	Duration	Finish	Resource Names
1		**Active**	**Development**	**3 days**	**Wed 4/28/04**	**Art Benson[0%]**
2		Active	Design instore pickup, store locator and inventory services	2 days	Tue 4/27/04	Art Benson
3		Active	Identify implementation tasks for new services	1 day	Wed 4/28/04	Art Benson
4		**Active**	**Testing**	**13 days**	**Mon 5/17/04**	**Renee Davis[0%]**
5		**Active**	**Scenario Tests**	**10 days**	**Wed 5/12/04**	**Renee Davis**
6		Active	Test: Instore pickup: Customers should be able to pickup their online orders in a retail st	3 days	Mon 5/3/04	Renee Davis
7		Active	Test: Store locator: The website should provide the store locator functionality	1 day	Tue 5/4/04	Renee Davis
8		Active	Test: Store search: Customers can locate a store by City, State, Zip Code	1 day	Wed 5/5/04	Renee Davis
9		Active	Test: Store Map: The website should assist the customer with map and driving directio	1 day	Thu 5/6/04	Renee Davis
10		Active	Test: Store inventory: Customers should be able to check inventory by store or a store	1 day	Fri 5/7/04	Renee Davis
11		Active	Test: Hold inventory: The website should allow customers to reserve inventory for 4 d	1 day	Mon 5/10/04	Renee Davis
12		Active	Test: Confirmation: Customers should be notified upon the completion of the sale	2 days	Wed 5/12/04	Renee Davis
13		Active	Final Customer Acceptance Test	3 days	Mon 5/17/04	TBD

使用 Microsoft Project分配工作


Home - Tour Package Services v2.1 - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://adventureworks/sites/tourpackageservicesv2_1/default
Home Documents and Lists Create Site Settings
Modify Shared Page
Documents
Project Management
Development
Test
Templates
Guidance
Reports
Work Items
Queries
Information Resources

Tour Package Services v2.1

Home

Announcements

TPS v2.1 now ready for design!

by Jesse Lim

Requirements defined and work scheduled for v2.1. Design ready to start. See http://adventureworks/tourpackageservices_v2_1/Project%20Management/Requirements/Requirements.xls for further details.

Add new announcement

Project Schedule

			February 2004			
Sun	Mon	Tue	Wed	Thur	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21

Iteration 1

I1 Design Due

I1 Code Complete

Redistributable for Software Developers
- Microsoft XML Parser (MSXML) 3.0 Service Pack 4 (SP4)
- MSXML 4.0 Service Pack 2 (Microsoft XML Core Services)
- Windows Script 5.6 for Windows 2000 and XP
- DirectX 9.0 Software Development Kit with DirectX 9.0b Runtime

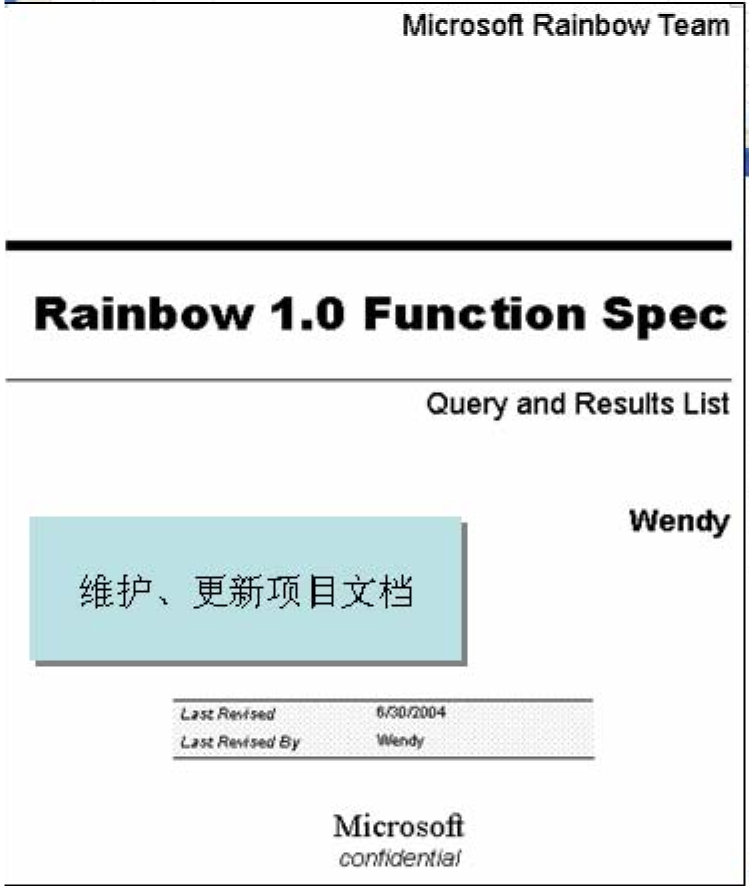
Add new link

Project Management

Type	Name	Modified By
	Project Vision Document ! New	Amy Hagstrom
	Project Plans	Frank Brisse
	Lifecycle	Frank Brisse
	Requirements	Frank Brisse
	Scenarios	Frank Brisse
	Features	Frank Brisse
	Others	Frank Brisse

Add new document

更新团队站点信息


Microsoft Rainbow Team

Rainbow 1.0 Function Spec

Query and Results List

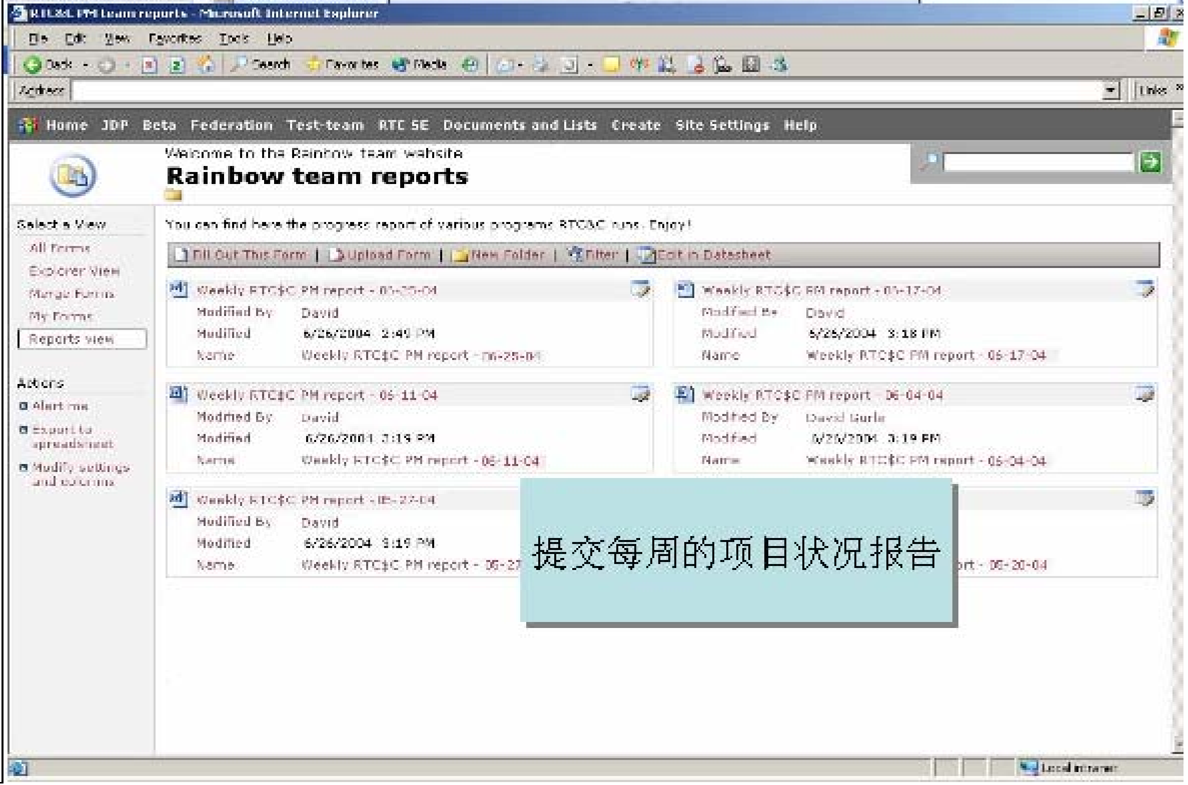
Wendy

Last Revised	6/30/2004
Last Revised By	Wendy

Microsoft

confidential

维护、更新项目文档


RTC&C PM team reports - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address
Links
Home JDP Beta Federation Test-team RTC SE Documents and Lists Create Site Settings Help
Select a View
All Forms
Explorer View
Merge Forms
My Forms
Reports view
Actions
Alert me
Export to spreadsheet
Modify settings and columns
Fill Out This Form | Upload Form | New Folder | Filter | Edit in Datasheet
Local intranet

Welcome to the Rainbow team website

Rainbow team reports

You can find here the progress report of various programs RTC&C runs. Enjoy!

Weekly RTC$C PM report - 06-25-04

Modified By: David

Modified: 6/26/2004 2:49 PM

Name: Weekly RTC$C PM report - 06-25-04

Weekly RTC$C PM report - 06-17-04

Modified By: David

Modified: 6/26/2004 3:18 PM

Name: Weekly RTC$C PM report - 06-17-04

Weekly RTC$C PM report - 06-11-04

Modified By: David

Modified: 6/26/2004 3:19 PM

Name: Weekly RTC$C PM report - 06-11-04

Weekly RTC$C PM report - 06-04-04

Modified By: David Gurle

Modified: 6/26/2004 3:19 PM

Name: Weekly RTC$C PM report - 06-04-04

Weekly RTC$C PM report - 05-27-04

Modified By: David

Modified: 6/26/2004 3:19 PM

Name: Weekly RTC$C PM report - 05-27

rt - 05-20-04

提交每周的项目状况报告

实现阶段的退出标准

- 代码完成
- 单元测试
- UI冻结
- 用户文档
- 详细规格文档

参考资源

济南:http://qilusoft.org/qtec

上海: http://www.chinaitclub.org/

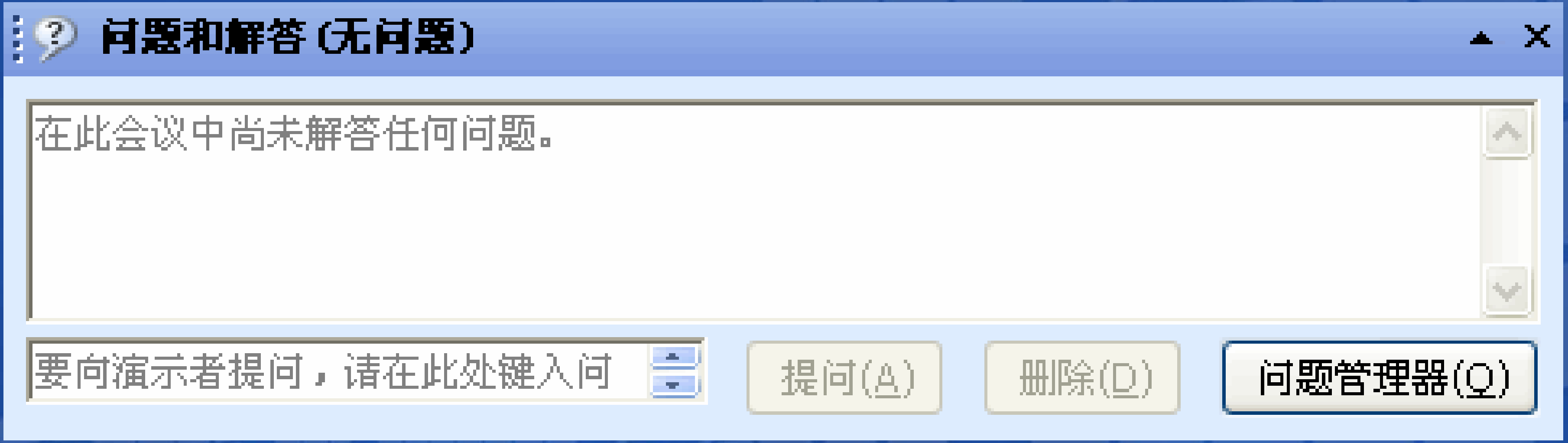
北京:http://bjnc.cnblogs.com

南京: http://www.bypro.net

青岛: http://www.qddn.net

Q&A

如需提出问题，请单击“提问”按钮并在随后显示的浮动面板中输入问题内容。一旦完成问题输入后，请单击“提问”按钮。



问题和解答 (无问题)

在此会议中尚未解答任何问题。

要向演示者提问，请在此处键入问

您的潜力，我们的动力

Microsoft

微软（中国）有限公司

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