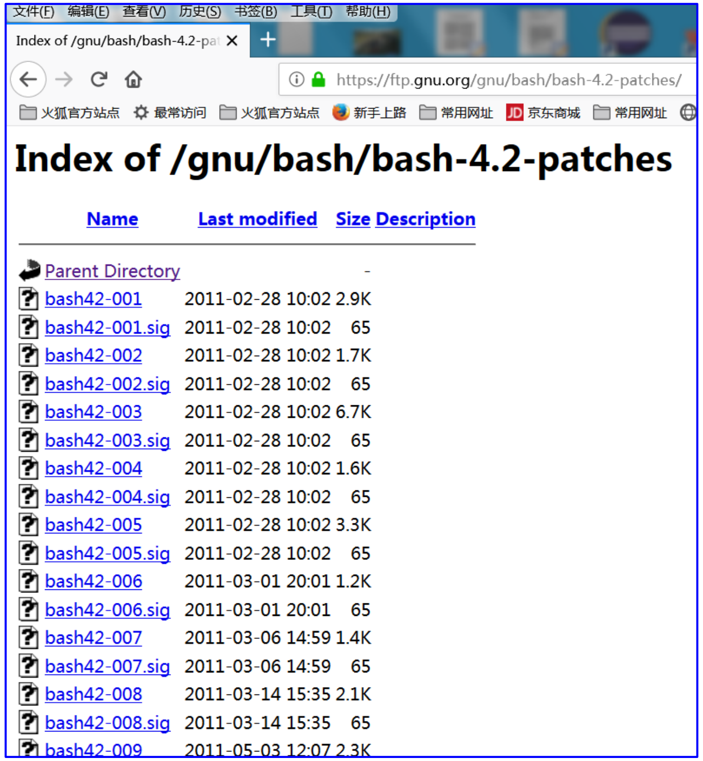
练习2：收集缺陷数据

(1) 下载Bash 4.2的补丁（53个patch）

http://ftp.gnu.org/gnu/bash/bash-4.2-patches/

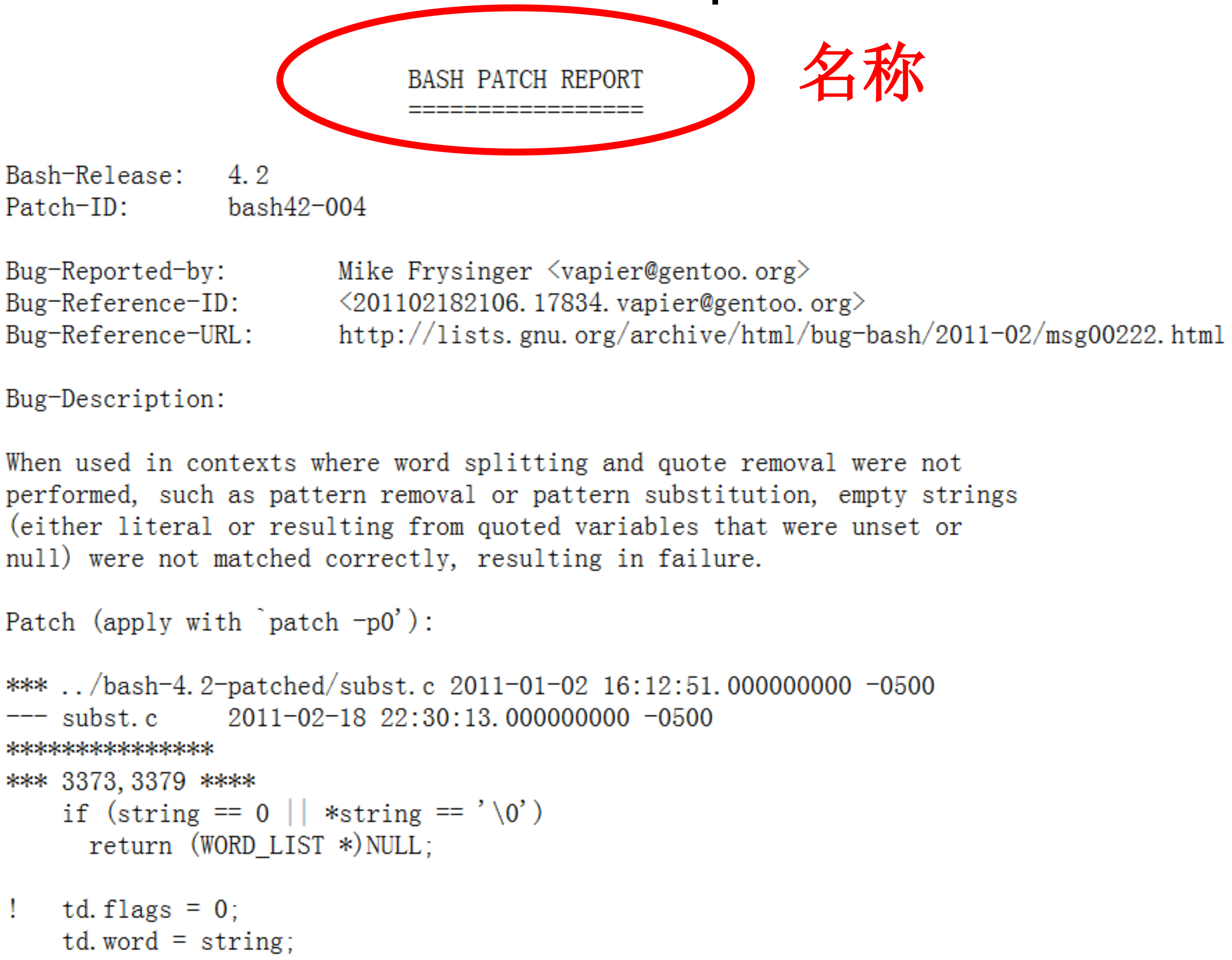

文件(F) 编辑(E) 查看(V) 历史(S) 书签(B) 工具(T) 帮助(H)
Index of /gnu/bash/bash-4.2-pa
https://ftp.gnu.org/gnu/bash/bash-4.2-patches/
火狐官方站点
最常访问
火狐官方站点
新手上路
常用网址
京东商城
常用网址

Index of /gnu/bash/bash-4.2-patches

Name	Last modified	Size	Description
Parent Directory		-	
bash42-001	2011-02-28 10:02	2.9K	
bash42-001.sig	2011-02-28 10:02	65	
bash42-002	2011-02-28 10:02	1.7K	
bash42-002.sig	2011-02-28 10:02	65	
bash42-003	2011-02-28 10:02	6.7K	
bash42-003.sig	2011-02-28 10:02	65	
bash42-004	2011-02-28 10:02	1.6K	
bash42-004.sig	2011-02-28 10:02	65	
bash42-005	2011-02-28 10:02	3.3K	
bash42-005.sig	2011-02-28 10:02	65	
bash42-006	2011-03-01 20:01	1.2K	
bash42-006.sig	2011-03-01 20:01	65	
bash42-007	2011-03-06 14:59	1.4K	
bash42-007.sig	2011-03-06 14:59	65	
bash42-008	2011-03-14 15:35	2.1K	
bash42-008.sig	2011-03-14 15:35	65	
bash42-009	2011-05-03 12:07	2.3K	

练习2：收集缺陷数据

每个patch的格式



名称

```
                BASH PATCH REPORT
                =================

Bash-Release:   4.2
Patch-ID:       bash42-004

Bug-Reported-by:        Mike Frysinger <vapier@gentoo.org>
Bug-Reference-ID:       <201102182106.17834.vapier@gentoo.org>
Bug-Reference-URL:      http://lists.gnu.org/archive/html/bug-bash/2011-02/msg00222.html

Bug-Description:

When used in contexts where word splitting and quote removal were not
performed, such as pattern removal or pattern substitution, empty strings
(either literal or resulting from quoted variables that were unset or
null) were not matched correctly, resulting in failure.

Patch (apply with `patch -p0'):

*** ../bash-4.2-patched/subst.c 2011-01-02 16:12:51.000000000 -0500
--- subst.c     2011-02-18 22:30:13.000000000 -0500
***************
*** 3373,3379 ****
    if (string == 0 || *string == '\0')
      return (WORD_LIST *)NULL;

!   td.flags = 0;
    td.word = string;
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练习2：收集缺陷数据

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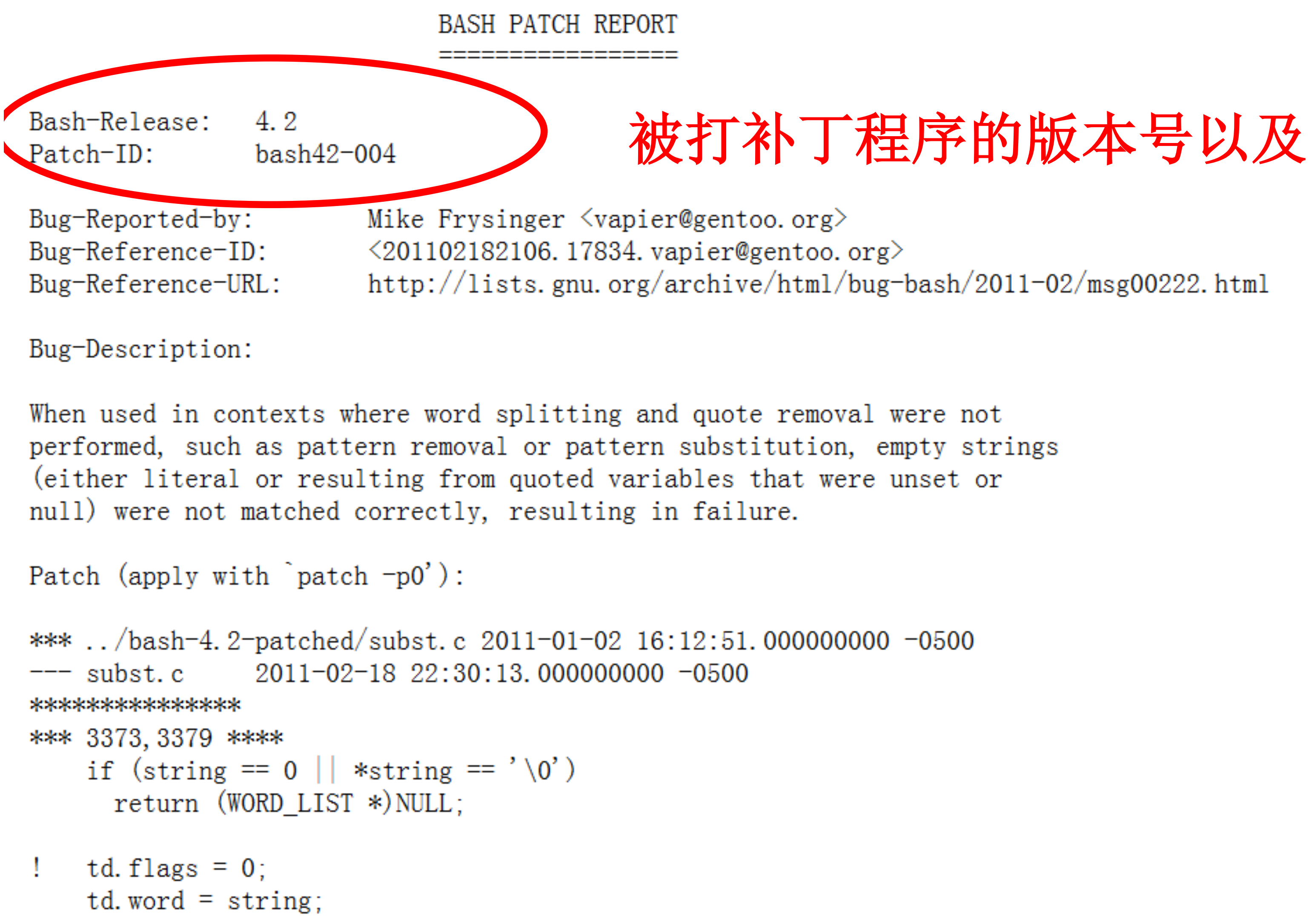

被打补丁程序的版本号以及补丁的编号

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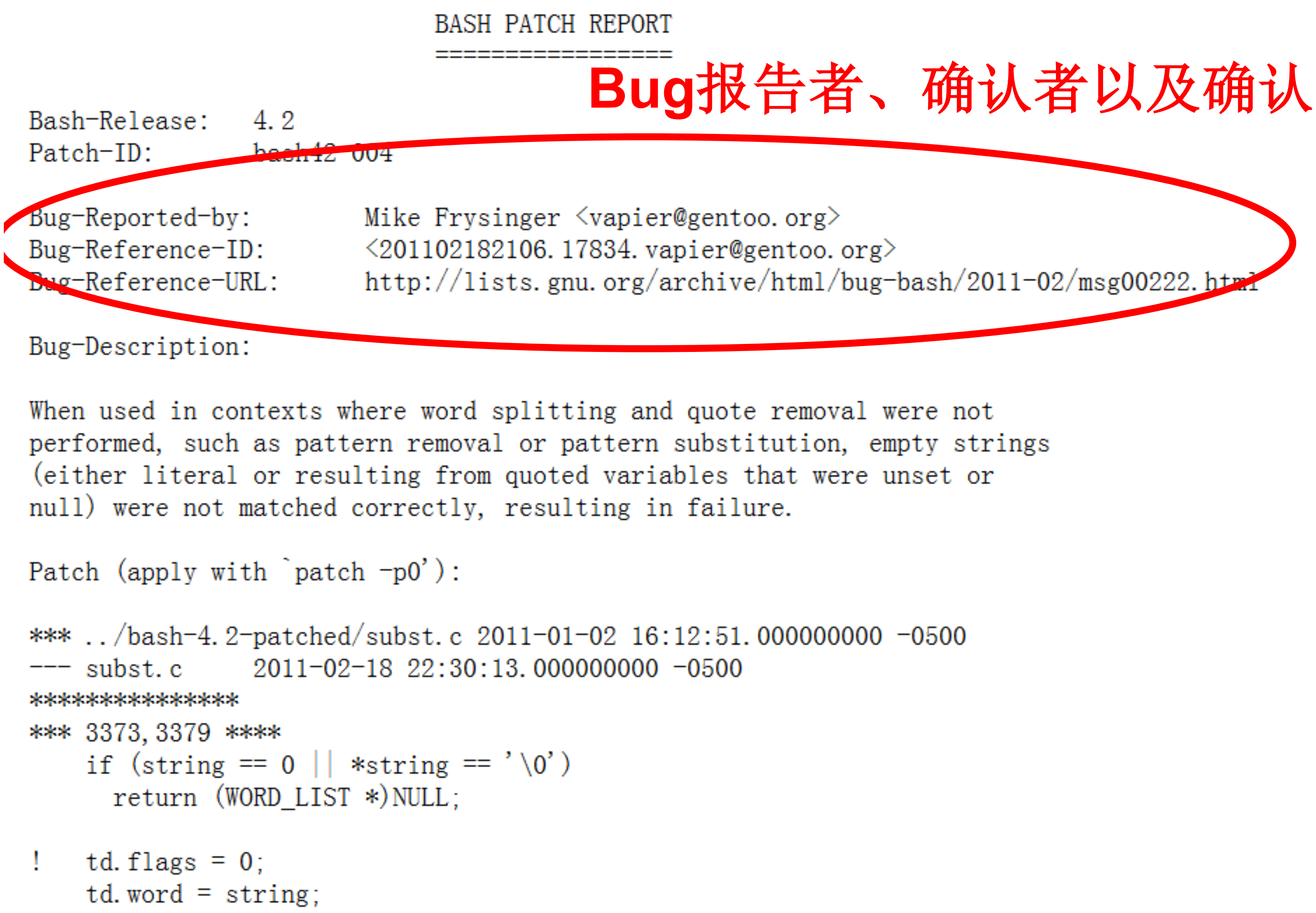
每个patch的格式



Bug报告者、确认者以及确认URL

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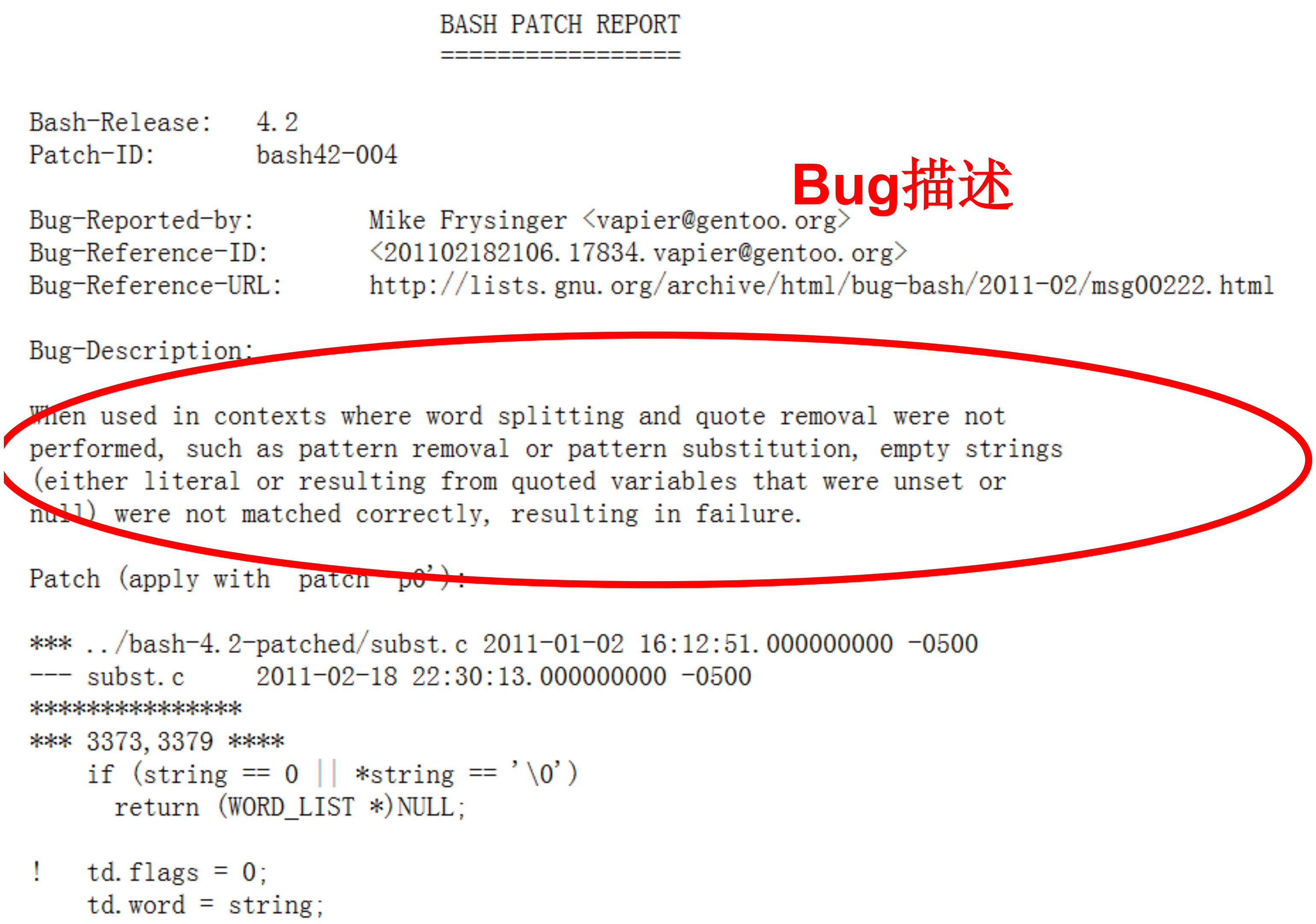

Bug描述

```
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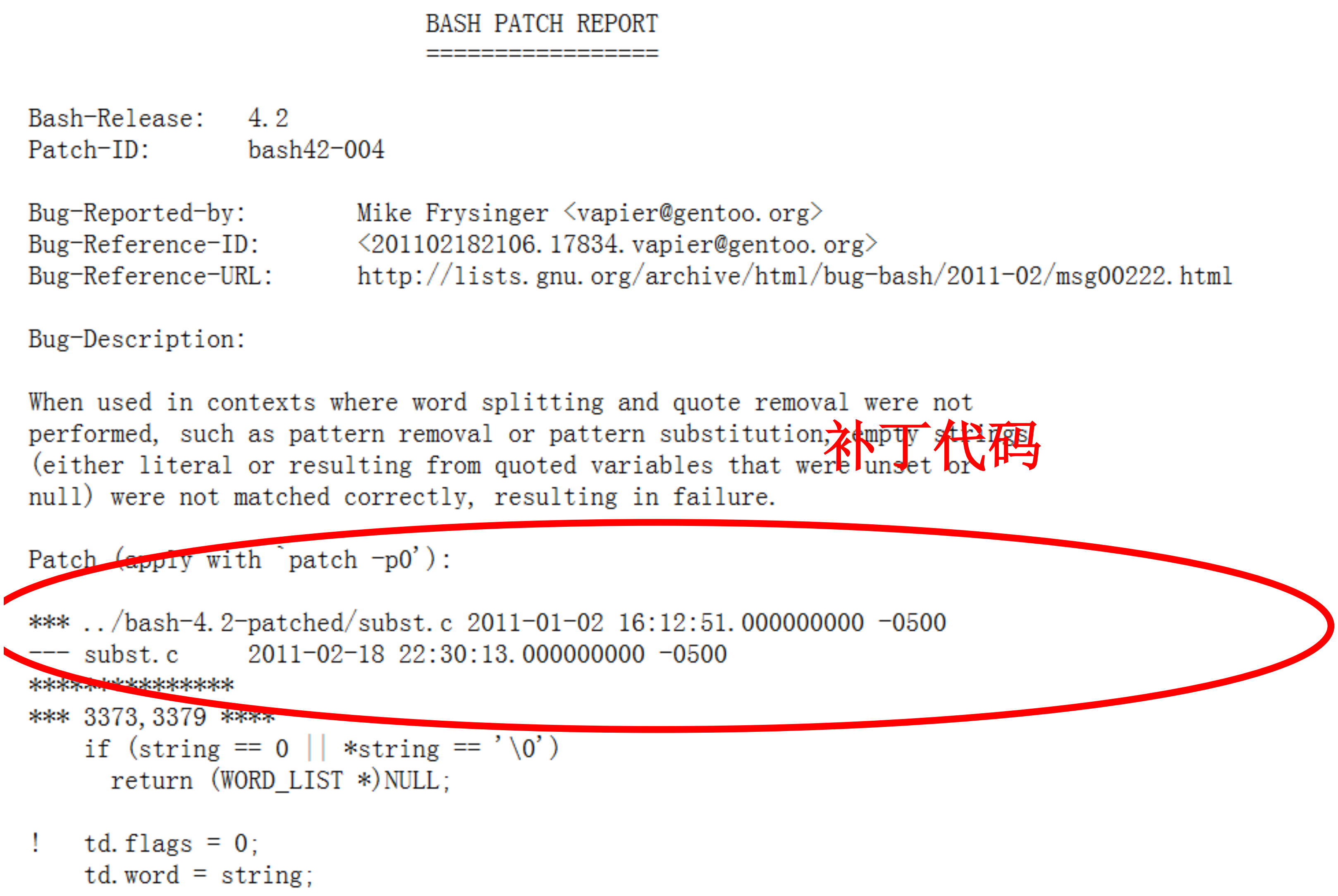

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补丁代码

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Patch举例

bash42-005

怎样读懂patch信息

http://www.ruanyifeng.com/blog/2012/08/how_to_read_diff.html

练习2：收集缺陷数据

(2) 编写一个Perl或者Python脚本，分析每个patch文件，统计每一个函数上的缺陷数目

规则：

a) 每个函数的初始缺陷数目为0

b) 分析每个patch，如果一个函数的代码在这个patch中被修改了，则它的缺陷数目增加1

在11月30日前提交：Perl或Python脚本以及数据集