| Planning | 1. Inspection ID | Date |
|----------|----------------------|--|
| | 1. Inspection ID | 第四組 |
| | 2. Team Moderator | 蔡和容 |
| | Author | |
| | Reviewers | (1)蔡和容 (4) |
| | | (2) 江孟竹 (5) |
| | | (3) |
| | 3. Documents | |
| | Work products | (1)(4) |
| | | (2)(5) |
| | | (3)(6) |
| | References | (1)(2) |
| | Checklists | (1) Classification of Fault Types (3) |
| | | (2)(4) |
| | 4. Meetings | Date Location Start End |
| | Orientation | 2016/5/12dream lab7:30 pm10:30 pm |
| | Review Meeting | 2016/5/12dream lab7:30 pm1:10 am |
| | 5. Planning | References obtained for work product. |
| | Objectives | Checklists obtained for work product. |
| | | Moderator is trained in Formal Technical Review procedure. |
| | | ☐ Team members agree to proposed times/dates. |
| | | Moderator's quick review yields less than 5 major issues. |
| | | Reviewers understand responsibilities and are committed. |
| | 6. Planning Effor | t <u>180</u> minutes |

| Orientation | 7. Prep. Goalsmin/pkg xpgs. =prep.min/reviewer |
|-------------|---|
| | 7. Prep. Goals5min/pkg x42pgs. =210 prep.min/reviewer |
| | 8. Orientation Reviewers understand scope and purpose of work product. Objectives Reviewers understand checking process, checklists, and references. |
| | Work product, references, checklists and checking forms provided. |
| | 9 Orient effort 210 minutes x 3 participants = 630 minutes |

Preparation

14. Critical, Severe and Moderate Issues

| Num | Location | Severity | Chk/Ref | Description |
|------------|-------------------|------------|--|--|
| 1 | 75 | 1 | Forgotten cases or | 少分號 |
| 2 | 117 | 2 | steps Referenced wrong | Useamt 改成 useAmt |
| 3 | 137 | 2 | data variable Subscripted variable incorrectly | <u>Vod 改成 void</u> |
| 4 | <u>156</u> | 1 | Incomplete | 少分號 |
| 5 | 161 | 1 | <u>Incomplete</u> | |
| 6 | 225 | 1 | <u>Incomplete</u> | 少分號 |
| 7 | 305 | 1 | <u>Incomplete</u> | 少分號 |
| 8 | <u>363</u> | 5 | Missing item | os fill ('.'); 改成 os.fill ('.'); |
| 9 10 | <u>368</u> 369 | 2 | Inconsistencies Inconsistencies | <u>percentuse</u> → <u>percentUse</u> <u>percentuse</u> → <u>percentUse</u> |
| 11 | 369 | 2 | Redundant items | for 迴圈後不該有分號 |
| 12 | 381 | 3 | Operator data incorrect or missing | for (int n = 0; n < ALPHABETLEN; n++) n 都改成 i |
| 13 | 393 | 5 | Operator in | tolower(ch) + 'a' 加改成減' |
| 14 | 395 | 3 | equation incorrect Equation insufficient or | <u>totAlphaNums+1 改成</u> <u>totAlphaNums++</u> |
| 15 | 421 | 2 | <u>incorrect</u> <u>Nonexistent</u> | ASSERT 改成 assert |
| 16 | 421 | 2 | subroutine called Inconsistent subroutine | elm 改成 elem |
| 17 | 422 | 2 | arguments Inconsistent subroutine | elm 改成 elem |
| 18 | 430 | 3 | arguments Forgotten cases or steps | n = 0 前面加"int" |
| 19 | 430 | 3 | Logic problem | n+改成 n++ |
| 20 | 432 | 2 | Operand in | <u>i 改成 n</u> |
| 21 | 669 | 2 | equation incorrect Wrong subroutine called | strcasecmp 改成 strcmp |
| 22 | 675 | 2 | <u>Called</u> Wrong subroutine called | strcasecmp 改成 strcmp |
| 23 | 696 | 2 | Wrong subroutine called | strcasecmp 改成 strcmp |
| 24 | 697 | 2 | <u>Wrong subroutine</u> called | strcasecmp 改成 strcmp |
| 25 | 710 | 2 | Wrong subroutine | strcasecmp 改成 strcmp |
| 26 | 715 | 2 | called Wrong subroutine called | strcasecmp 改成 strcmp |
| 27 | 1422 | 2 | Inconsistent subroutine | <u>cofile 改成 confile</u> |
| 28 | 1452 | 2 | arguments Inconsistent subroutine arguments | AlphaFn 改成 alphaFn |
| 15. Effort | 152 minutes | 16. Issues | 1 4 1 | 7 5 0 |

| 15. Ellort _ | 152 | _minutes | ro. issues | | 4 | | | |
|--------------|-----|----------|------------|----------|--------|----------|-------|------------|
| | | | Totals | critical | severe | moderate | minor | author Q's |

Work product has been completely checked. 17. Preparation

All critical, severe and moderate issues are noted on this form. Objectives

Preparation

10. Inspection ID 4

12. Reviewer ID 102062340

11. Document <u>concordance_faulty.cc</u>

13. Reviewer name <u>蔡和容</u>

14. Critical, Severe and Moderate Issues

| Num | Location | Severity | | Chk/ | Ref | | Description | า | |
|-----------------------|-------------------|-----------------------|----------------|-------------------|-----------------------|--|-----------------------------------|-----------------|--|
| <u>1</u> | <u>75</u> | <u>1</u> | Forgott | en cases o | r steps | 句尾少 | 〉了分號";" | | |
| 2 | 137 | <u>1</u> | Subscr | ipted variab | le incorrectly | | 為 void | | |
| 3 | 156 | <u>1</u> | Incomp | | | | >了分號";" | | |
| 4 | 161 | | Incomp | | | | ·了分號";" | | |
| <u>∸</u> 5 | <u>225</u> | <u>+</u> 1 | Incomp | | | | · 了分 <u>派;</u> >了分號";" | | |
| 2 3 4 5 6 | <u>212</u> | 1 1 5 | Data pr | | | | n 的值應該是 | loc | |
| <u>5</u> 7 | <u>212</u> 282 | <u>2</u> | Incomp | | | | :後面少了冒號 | | |
| <u>/</u> <u>8</u> | 361 | <u> </u> | _ | | on incorrect | | cc.character | | |
| <u>u</u> | <u>301</u> | <u> </u> | Орстан | ia iii cquatii | <u> Jir incorrect</u> | 應該改 | | | |
| • | 000 | | | | | <u>os <<</u> | cc.character | << ' ' <u>;</u> | |
| <u>9</u> | <u>363</u> | <u>3</u> | Missing | <u>ıtem</u> | | os fill | | | |
| | | | | | | 應該改 os.fill | | | |
| 10 | <u>369</u> | 2 | Redund | dant items | | | <u>v. 1.</u> op condition h | nas no "." | |
| 11 | 371 | <u>=</u> 5 | | | ect or missing | | n的值應該是 | | |
| 12 | 381 | 2 | | | rrect or missir | | op 變數不一致 | | |
| <u>13</u> | 430 | 2 5 2 1 | | en cases o | | | op 未宣告 n | _ | |
| 14 | 432 | <u>2</u> | | | on incorrect | | op 變數不一致 | Ż | |
| <u>15</u> | 478 | 3 | Incomp | | | | 語法錯誤應為 | | |
| _ | <u></u> | _ | | | | Locus | ::Locus | | |
| <u>16</u> | <u>495</u> | <u>4</u> | Logic p | roblem | | | 反應為 | | |
| | | | | | | word | | | |
| <u>17</u> | <u>656</u> | <u>4</u> | Logic p | <u>roblem</u> | | | 1反應為 | | |
| <u>18</u> | 669 | 4 | Wrong | subroutine | called | !head | 过式,strcmp() | ✓ ★ 株 1 | |
| | | 4 4 4 4 4 | | | | | | | |
| <u>19</u> | <u>675</u> | 4 | | subroutine | | | 式,strcmp() | | |
| <u>20</u> | <u>696</u> | 4 | | <u>subroutine</u> | | | 过式,strcmp() | | |
| <u>21</u> | <u>697</u> | 4 | | subroutine | | | 过式,strcmp() | | |
| <u>22</u> | <u>710</u> | | | <u>subroutine</u> | | | 过大,strcmp() | | |
| <u>23</u> | <u>715</u> | <u>4</u> | | subroutine | | | 过式,strcmp(| <u>才對</u> | |
| <u>24</u> | <u>817</u> | <u>5</u> | <u>Operate</u> | or in equation | on incorrect | | 計誤應改為 | | |
| | 0.40 | _ | | | | <u><=和></u> | | | |
| <u>25</u> | <u>818</u> | <u>5</u> | Operate | or in equati | on incorrect | | 普誤應改為 | | |
| 20 | 000 | • | | | | <u><=和></u> | | | |
| <u>26</u> | <u>820</u> | <u>3</u> | Operate | or in equati | on incorrect | | <u>門子完整</u> | | |
| <u>27</u> | 1404 | <u>5</u> | Logic p | rohlem | | | <u>- 問號"?"</u> 皆誤 條件句加. | Ŀ _ | |
| 28 | 1404 | <u>5</u> | Logic p | | | <u>運車車</u> 應加「 | | <u></u> | |
| <u>20</u> 29 | 1456 | <u>5</u> | Logic p | | | 應加」 | | | |
| <u>29</u> | 1430 | <u> </u> | <u>Logic p</u> | <u>irobiem</u> | | <u> 恁儿 </u> | <u>_X</u> | | |
| | | | | | | | | | |
| 15. Effort | 183 minutes | s 16. I | ssues | 8 | 8 | 3 | 10 | 0 | |
| . 0. 2010 | | | | | <u> </u> | | | | |
| | | | Totals | critical | severe | moderate | minor | author Q's | |

Work product has been completely checked. 17. Preparation

All critical, severe and moderate issues are noted on this form. Objectives

 $\overline{\mathsf{M}}$ All minor issues and author questions are noted on the work product.

Preparation

15.

- 10. Inspection ID 4
- 11. Document <u>concordance_faulty.cc</u>
- 12. Reviewer ID 102062341
- 13. Reviewer name ___方姿婷

14. Critical, Severe and Moderate Issues

| Num | Location | S | everity | | Chk/Ref | | Description |
|-----------|-------------|------------|------------------|-------------------|-----------------------|-------------------|---|
| _1_ | _75_ | | 2 | Forgotte | n cases or step | s enur | n{}後面少分號 |
| 2 | 117 | | 2 | | g wrong variable | | Amt 寫成 Useamt |
| 3 | 137 | | 2 | | ted variable | | 寫成 vod |
| | | | | incorrect | | <u> </u> | 30/30 VOG |
| _4_ | 142 | | _4_ | | in equation | <u><<要</u> | <u>改成>></u> |
| _5_ | _143_ | | _4_ | | in equation | >> 要 | 改成<< |
| 6 | <u> 156</u> | | _1_ | Incomple | | 句尾 | 少; |
| 7 | 161 | | 1 | Incomple | ete | 句尾 | <u>少;</u> |
| 8 | 262 | | 1 4 | Operand | in equation | <<要 | 改成>> |
| | | | | incorrect | | | |
| 9 | <u>263</u> | | _4_ | Operand incorrect | l in equation | <u>>>要</u> | 改成<< |
| 10 | 277 | | 3 | Variable- | type incorrect | Word | d 改成 Word* |
| 11 | 278 | | 3 | Variable- | type incorrect | Wor | d 改成 Word* |
| 12 | 279 | | _3_ | Variable- | type incorrect | Word | d 改成 Word* |
| 13 | 363 | | 3 2 2 2 | Missing i | | | ('.'); 改成 os.fill ('.'); |
| 14 | 368 | | 2 | Inconsis | | | entuse → percentUse |
| 15 | 369 | | 2 | Inconsist | tencies | | entuse → percentUse |
| 16 | 421 | | 2 | Nonexist | ent subroutine | | ERT 要改成 assert |
| | | | | <u>called</u> | | | |
| <u>17</u> | 421 | | 2 | | g wrong variable | | ı 寫成 elm |
| <u>18</u> | 422 | | 2 | | g wrong variable | | n 寫成 elm |
| <u>19</u> | 430 | | 2 | <u>Forgotte</u> | n cases or step | <u>s</u> 忘記 | <u>宣告 n</u> |
| 20 | 430 | | 2 | | rin equation | <u>n++</u> 2 | <u>寫成 n+</u> |
| | | | | incorrect | | | * |
| 21 | 434 | | _4_ | | l in equation | <u>>>安</u> | 改成<< |
| 22 | 660 | | 2 | incorrect | : d or stored data | hoo. | d-prv 要改成 |
| | _000_ | | | incorrect | | | <u>i-prv 安以风</u> ḋ->prv |
| 23 | 813 | | _4_ | | ndling problem | | <u>ローラロマ</u> DLEAN 要改成 int |
| 24 | 820 | | 2 | | r in equation | <u>200</u> 少加 | |
| | | | <u></u> | incorrec | iii equation | | <u>:</u> " YES : NO |
| 25 | 827 | | 3 | | type incorrect | FILE | fp改成 FILE *fp |
| 26 | 947 | | 4 | | ndling problem | | DLEAN 要改成 int |
| 27 | 948 | | 1 | | sary function | | gError() 根本沒被用 |
| | | | <u></u> | <u> </u> | oary ramonom | <u>三</u> 到 | <u>.g=() </u> |
| 28 | 1009 | | 2 | Missing i | item | | -> #ifdef |
| 29 | 1382 | | 2 | Missing i | | | e(fp); |
| | | | | | | 少寫 | |
| 30 | 1456 | | 4 | Logic pro | oblem | | afile 少加& |
| 31 | 1465 1466 | 6 | 4 | Operand | in equation | | · 改成<< |
| | | _ | | incorrect | | | |
| | | | | | | | |
| . Effort | 140 minutes | 16. Issues | 18 | 11 | 1 | 1 | 1 |
| | . 10 | | | | - | | |
| | | Totals | critical | severe | moderate | minor | author Q's |

17. Preparation Work product has been completely checked.

Objectives $\[\]$ All critical, severe and moderate issues are noted on this form.

 $\begin{tabular}{l} \hline \end{tabular}$ All minor issues and author questions are noted on the work product.

Review

Aggregate Checking Data

| Meeting | | R1 | R2 | R3 | | Total | |
|---------|--------------------|--------------|--------------|-----|-----|-------|-----------|
| | 18. Prep. Effort | <u>152</u> + | <u>183</u> + | 140 | = | 475 | minutes |
| | 19. #Critical Iss. | <u>1</u> + | <u>8</u> + | 18 | = . | 27 | issues |
| | 20. #Severe Iss. | <u>4</u> + | <u>8</u> + | 11_ | = . | 23 | issues |
| | 21. #Moder. Iss. | <u>17</u> + | <u>3</u> + | 1 | = . | 21 | issues |
| | 22. #Minor Iss. | <u>5</u> + | <u>10</u> + | 1 | = . | 16 | issues |
| | 22. #Author Q's | 0 + | 0 + | 1 | = | 1 | auestions |

23. Consolidated list of critical, severe and moderate issues

| Num | Location | Severity | Chk/Ref | Description |
|-----|----------|----------|----------------------------------|--|
| 1 | 75 | 1 | Forgotten cases or steps | |
| 2 | 117 | 2 | Referenced wrong | Useamt 改成 useAmt |
| 3 | 137 | 2 | data variable Subscripted | <u>Vod</u> 改成 void |
| 4 | 142 | 4 | variable incorrectly Operand in | << 改成 >> |
| 5 | 143 | 4 | equation incorrect Operand in | >> 改成 << |
| 6 | 156 | 1 | equation incorrect Incomplete | 少分號 |
| 7 | 161 | 1 | Incomplete | |
| 8 | 212 | 3 | Data problem | return 0 改成 |
| | | | | return loc |
| 9 | 225 | 1 | <u>Incomplete</u> | _ 少分號 |
| 10 | 262 | 4 | Operand in equation incorrect | << 改成 >> |
| 12 | 263 | 4 | Operand in equation incorrect | >> 改成 << |
| 13 | 277 | 4 | Variable-type incorrect | Word 改成 Word* |
| 14 | 278 | 4 | Variable-type incorrect | Word 改成 Word* |
| 15 | 279 | 4 | Variable-type incorrect | Word 改成 Word* |
| 16 | 282 | 3 | Incomplete | Public 後少冒號 |
| 17 | 305 | 1 | <u>Incomplete</u> | 少分號 |
| 18 | 361 | 4 | Operand in | os >> cc.character |
| | | | equation incorrect | >>''; 改成 os << |
| 19 | 363 | 5 | Missing item | <u>cc.character << ' ';</u> os fill ('.'); 改成 os.fill |
| | | _ | | <u>('.');</u> |
| 20 | 368 | 2 | <u>Inconsistencies</u> | <u>percentuse</u> → percentUse |
| 21 | 369 | 2 | <u>Inconsistencies</u> | percentuse → percentUse |
| 22 | 369 | 2 | Redundant items | for 迴圈後不該有分號 |
| 23 | 371 | 3 | Output data incorrect or missing | return cc 改成 return |
| 24 | 381 | 3 | Operator data | os for (int n = 0; n < |
| | | | incorrect or missing | ALPHABETLEN; n++) |
| 25 | 303 | 5 | Operator in | <u>n 都改成 i</u> |
| 25 | 393 | <u> </u> | equation incorrect | <u>tolower(ch) + 'a' 加改</u> 成減' |
| 26 | 395 | 3 | Equation insufficient | totAlphaNums+1 改 |
| | | | or incorrect | 成 totAlphaNums++ |
| 27 | 421 | 2 | Nonexistent | ASSERT 改成 assert |

| 28 | 421 | 2 | subroutine called Inconsistent | alm 小中 alam |
|-----------------|---------------------|-----|-------------------------------------|---------------------------------------|
| | <u> </u> | | subroutine | <u>elm 改成 elem</u> |
| 00 | 400 | | <u>arguments</u> | |
| 29 | 422 | 2 | <u>Inconsistent</u> subroutine | <u>elm 改成 elem</u> |
| | | | arguments | |
| 30 | 430 | 3 | Forgotten cases or | n = 0 前面加"int" |
| 31 | 430 | 3 | <u>steps</u> Logic problem | 71-1 |
| | | | · | <u>n+改成 n++</u> |
| 32 | 432 | 2 | Operand in equation incorrect | <u>i 改成 n</u> |
| 33 | 434 | 4 | Operand in | >> 改成 << |
| 0.4 | 470 | | equation incorrect | 27 20070 |
| 34 | <u>478</u> | 4 | <u>Incomplete</u> | Locus:Locus 改成 |
| 25 | 405 | _ | Logio problem | Locus::Locus |
| 35 | <u>495</u> | 5 | <u>Logic problem</u> | word = 0 改成 |
| 36 | 656 | 5 | Logic problem | <u>word != 0</u> |
| | <u>-</u> | | | <u>head 改成!head</u> |
| 37 | 660 | 2 | Accessed or stored data incorrectly | <u>head-prv 改成</u> |
| 20 | 600 | 0 | <u> </u> | <u>head->prv</u> |
| 38 | 669 | 2 | Wrong subroutine called | strcasecmp 改成 |
| 39 | 675 | 2 | Wrong subroutine | strcmp |
| | | | called | strcasecmp 改成 |
| 40 | 696 | 2 | Wrong subroutine | strcmp |
| | | | <u>called</u> | strcasecmp 改成 |
| 41 | 697 | 2 | Wrong subroutine | strong arms 3/1 === |
| | | | called | strcasecmp 改成 |
| 42 | 710 | 2 | Wrong subroutine | <u>strcmp</u> <u>strcasecmp 改成</u> |
| · <u> </u> | <u> </u> | | called | strcmp |
| 43 | <u>715</u> | 2 | Wrong subroutine | strcasecmp 改成 |
| | | | <u>called</u> | strcmp |
| 44 | <u>813</u> | 5 | Variable-type | BOOLEAN 改 int |
| 45 | 817 | 4 | <u>incorrect</u> Operator in | |
| 45 | 017 | 4 | equation incorrect | <、>改成<=、>= |
| 46 | 818 | 4 | Operator in | <、>改成<=、>= |
| 47 | 000 | 0 | equation incorrect | VEO NO ********* |
| 47 | 820 | 2 | Operator in equation incorrect | YES: NO 前面加? |
| 48 | 827 | 3 | Variable-type | FILE fp 改成 FILE *fp |
| 40 | 050 | 0 | incorrect | |
| 49 | <u>852</u> | 2 | Operand in equation incorrect | <u>i 改成 n</u> |
| 50 | 947 | 5 | Variable-type | BOOLEAN 改成 int |
| E4 | 0.40 | 0 | incorrect | |
| 51 | 948 | 0 | <u>Unnecessary</u> function | extern BOOLEAN |
| | | | <u> </u> | isFlagError 根本沒 |
| 50 | 4000 | 0 | Marine | 被用到 |
| <u>52</u> 53 | <u>1009</u> 1382 | 2 2 | Missing item Conflicting items | ifdef -> #ifdef 加 fp |
| 54 | 1404 | 2 | Logic problem | 加上= |
| 55 | 1404 | 4 | Logic problem | 加上& |
| 56 | 1422 | 2 | Inconsistent | cofile 改成 confile |
| | | | subroutine | COME WAS COMME |
| E-7 | 4.45 | 2 | arguments Inconsistant | -, · |
| 57 | 145 | 2 | Inconsistent subroutine | AlphaFn 改成 |
| | | | <u>arguments</u> | <u>alphaFn</u> |
| 58 | 1456 | 4 | <u>Logic problem</u> | 加上& |
| 59 | 1465&1466 | 4 | Operand in | >>改成<< |
| | | | equation incorrect | |

24. Review Meeting

Objectives

✓ All reviewers present. List absent reviewer ID's:

✓ All reviewers prepared sufficiently for meeting.

✓ All issues noted by Scriber and understood by Author for rework.

✓ Any problems with inspection process have been noted.

25. R.M. effort

108 minutes x 3 participants = 324 minutes

• Inspection Metrics

1. Estimated Total Defects

A = number found by reviewer 104065511 = 28

B = number found by reviewer 102062340 = 29

C = number found by reviewer 102062341 = 31

D = number found by A, B and C = 5

⇒ Estimated Total Defects = (A*B*C/D) = 5034.4

2. Yield

Yield = Total Defects Found / Estimated Total Defects = 59/5034.4 = 0.0117

3. Defect Density

Defect Density = Total Defects Found / Size = 59/42 = 1.4 (defects/page)

4. Inspection Rate

```
Inspection Rate = Size / total inspection hours = 42/ (152+183+140) + 324 = 324.088 (pages/hour)
```

5. Defect

Total defects found = A+B-C, where A and B are the number found by A and B respectively, C is the number found by both A and B.

Since we have 3 reviewers, the formula could be derived to A+B+C-D-E+F, where A, B,C is the number found by A, B, C respectively, D, E is the number found by two reviewers, F is the number both three reviewers found.

Thus, our total defect is 59.

6. Finding Efficiency

Finding Efficiency = total defects found / total inspection hours = 59 / (152+183+140)

= 59/475

= 0.124210526