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REEMENT
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SLAUGHTER AND MAY

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All the partners in the firm except A.A. Maggjar are solicitors. P.J.L. Kett, P.L.R. Deckers and A.A. Maggjar are Avocats à la Cour d'Appel de Paris.

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Document number CA992700193

Your reference

In reply please quote JRT/FMO

Writer's direct line

28th September, 1999

Dear Mr Baines

Documents relating to the Second Supplemental Agreement

At Jeff Triggs' request, I enclose:-

1. The following original documents:-
 - (a) Second Supplemental Agreement dated 24th September, 1999;
 - (b) Side Agreement dated 24th September, 1999;
 - (c) Rectification Timetable as referred to in the Second Supplemental Agreement;
 - (d) Annex to Second Supplemental Agreement dated 24th September, 1999;
 - (e) Emergency Change Control Note 562 to the Codified Agreement dated 24th September, 1999.

I will forward the originals of the Fujitsu letter and Japanese legal opinion when we receive these from Masons.

2. Two copies of the "Bible of Documents relating to the Second Supplemental Agreement to the Codified Agreement".

/Contd.

SLAUGHTER AND MAY

K Baines Esq

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28th September, 1999

Please do not hesitate to contact me if there are any problems.

Yours sincerely

GRO

pp Martin Ostberg

THIS SECOND SUPPLEMENTAL AGREEMENT, being Change Control Note (CCN) No. 560 is made the 24th day of September, 1999

BETWEEN:

- (1) POST OFFICE COUNTERS LTD., whose registered office is at Gavrelle House, 2-14 Bunhill Row, London EC1Y 8HQ; and
- (2) ICL PATHWAY LIMITED, whose registered office is at 26 Finsbury Square, London EC2A 1DS (the "Contractor").

WHEREAS:

- (A) This Second Supplemental Agreement is supplemental to the Codified Agreement between the parties dated 28th July, 1999 (the "Codified Agreement") and constitutes CCN No. 560 of that Codified Agreement.
- (B) The Contractor and POCL have been carrying out the Operational Trial and the other Acceptance Procedures in accordance with the Codified Agreement.
- (C) By a Supplemental Agreement dated 20th August, 1999 (the "First Supplemental Agreement") the parties agreed that CSR Acceptance had not been achieved at the end of the CSR Operational Trial Review Period.
- (D) By the First Supplemental Agreement the parties agreed, inter alia, a programme of work with a view to achieving Acceptance and Release Authorisation by 24th September, 1999, and also agreed that only certain elements of the Core System Release were required to be re-submitted for testing in the Second CSR Acceptance Test and that only certain faults could be raised as Acceptance Incidents in relation to the Second CSR Acceptance Test.
- (E) As at the date of this Second Supplemental Agreement the following Acceptance Incidents (in addition to those categorised as category (c) faults) remain outstanding:-
 - (i) Category (b) Faults which are Substantive New Faults reported to the Contractor after 3rd September, 1999 in respect of which no timetable for resolution has been agreed

Those Acceptance Incidents described in Part A of Schedule 1; and
 - (ii) Faults not falling within recital (E)(i) above

Those Acceptance Incidents described in Part B of Schedule 1.

It is Agreed as follows

1. Interpretation

- 1.1 Words and expressions defined in the Codified Agreement or the First Supplemental Agreement shall bear the same meanings when used in this Agreement.
- 1.2 In this Agreement the expression "POCL" shall bear the meaning ascribed thereto in the Codified Agreement.
- 1.3 Unless the context otherwise requires references in this Agreement to clauses, Recitals and Schedules are to clauses of, and Recitals and Schedules to, this Agreement.

- 1.4 In this Agreement, unless the context otherwise requires:-

"Accounting Integrity Control Release" means the software release to implement the functionality described in the TIP Control CCD .

"Accounting Integrity Control Release Date" means the date on which the Accounting Integrity Control Release shall have been:-

- (i) developed in accordance with the TIP Control CCD;
- (ii) demonstrated by appropriate testing to have met the specification set out in the TIP Control CCD;
- (iii) observed in operation,] during a live observation period comprising two cash account weeks, in all Outlets to which Rollout shall have taken place as at the beginning of such observation period; and
- (iv) fully deployed in all Outlets to which Rollout shall have taken place at such date.

"Cash Account Discrepancies" has the meaning ascribed thereto in Clause 7.1.

"Liabilities" means losses, costs, claims, charges, demands, expenses and liabilities.

"Rectification Plan" has the meaning ascribed to it in Clause 3.1.

"Rectification Timetable" means the document so described and initialled by the parties or their legal advisers for the purposes of identification.

"TIP Control CCD" means the CCD entitled "Logical Design for EPOSS/TIP Reconciliation Controls".

“TIP Integrity Checking Period” means the period from the date of this Agreement until the expiry of a period of four consecutive weeks after the Accounting Integrity Control Release Date in which the TIP Integrity Checking Process shall have identified no Cash Account Discrepancies not also identified by the Accounting Integrity Control Release.

“TIP Integrity Checking Process” means the process to be performed by POCL pursuant to clause 7.1.

“TIP Interface” means the systems interface described in paragraph 3.4.1 of Schedule G01 to the Codified Agreement and defined in the CCD entitled “Pathway to TIP Application Interface Specification”.

2. CSR Acceptance

- 2.1 The parties agree that CSR Acceptance shall be deemed to have been achieved as at the date of this Agreement.
- 2.2 POCL acknowledges that the Release Authorisation Board has, in reliance on the terms of this Agreement, authorised national rollout of the Core System with effect from execution of this Agreement by both parties hereto.

3. Remedy of Outstanding Faults

- 3.1 The Contractor undertakes to use its reasonable endeavours to resolve each of the outstanding Acceptance Incidents referred to in Part B of Schedule 1 in accordance with the rectification plans listed Schedule 2 (“Rectification Plans”) and the Rectification Timetable. POCL shall use its reasonable endeavours to comply with the obligations imposed on it in the Rectification Plans. In the event of any conflict between Schedule 2 and the Rectification Timetable the provisions of Schedule 2 shall prevail.
- 3.2 For the avoidance of doubt, notwithstanding that the express provisions of Schedule 2 may purport to impose absolute obligations on the parties, the parties’ obligations in respect thereof shall be limited to using their respective reasonable endeavours to perform them.
- 3.3 If any of the outstanding Acceptance Incidents referred to in Part B of Schedule 1 shall not have been remedied by the use of such reasonable endeavours by the due date contained within the Rectification Timetable the Contractor shall continue to use reasonable endeavours to resolve such Incident at its own expense as soon as practicable thereafter and, where applicable, POCL shall continue to use its reasonable endeavours to co-operate in such resolution in a manner consistent with the co-operation required of it under the Rectification Plans.
- 3.4 The provisions of clause 3.4 of the First Supplemental Agreement shall apply in relation to Acceptance Incidents referred to in Part A of Schedule 1.

- 3.5 All work carried out by the Contractor, its agents and its sub-contractors in remedying any of the Acceptance Incidents referred to in Part A of Schedule 1 shall be at the sole risk and expense of the Contractor.
- 3.6 The Contractor shall co-operate and join with POCL in providing such information and explanation to the Post Office's auditors as such auditors may reasonably require in order to satisfy themselves that the audit reports of the Post Office and POCL should not be qualified or contain a fundamental uncertainty paragraph as a result of the circumstances giving rise to Acceptance Incident 376.

4. First Supplemental Agreement

- 4.1 Clauses 5, 6 and 7 of the First Supplemental Agreement shall be superseded by this Agreement and shall cease to apply with effect from the date hereof. The remaining provisions thereof shall continue in effect insofar as they remain applicable.
- 4.2 For the avoidance of doubt, clause 4.6 of the First Supplemental Agreement shall continue to apply.

5. Variation of Roll Out Programme

The Roll Out Programme in Annex 1 to Schedule A12 to the Codified Agreement shall be replaced in its entirety by the Roll Out Programme set out in Schedule 3 to this Agreement.

6. Suspension of Rollout

6.1 If:-

- 6.1.1 any of the criteria in parts A to C of Schedule 4 shall not have been met by 24 November, 1999; or
- 6.1.2 the Accounting Integrity Control Release Date shall not have occurred by 14 January, 2000; or
- 6.1.3 any of the criteria set out in part D of Schedule 4 shall not have been met by 14 January, 2000

POCL shall be entitled by notice to the Contractor to postpone the resumption of Rollout from 24 January, 2000 until such later date as shall be agreed pursuant to clause 6.2 below.

- 6.2 If POCL gives notice pursuant to clause 6.1 above the parties shall meet as soon as reasonably practicable thereafter with a view to agreeing and documenting:-

- 6.2.1 a plan and timetable for re-testing and demonstrating the satisfaction of each of the criteria set out in Parts A to D (inclusive) of Schedule 4 not then satisfied; and
- 6.2.2 a revised Roll Out Programme to take effect once the satisfaction of all such criteria shall have been demonstrated and the Accounting Integrity Control Release Date shall have occurred.

7. TIP Integrity Checking Process

- 7.1 POCL agrees that during the TIP Integrity Checking Period it shall, on a weekly basis, carry out a process of creating a cash account from individual transaction data received by it across the TIP Interface, comparing such cash account with the electronic cash account received by it from the Contractor across the TIP Interface, reporting to the Contractor any discrepancies between such accounts ("Cash Account Discrepancies") and providing to the Contractor such co-operation as shall be necessary in order to enable the Contractor to investigate such Cash Account Discrepancies.
- 7.2 In consideration for POCL performing the TIP Integrity Checking Process the Contractor shall pay to POCL a charge calculated as follows:-
 - (i) a fixed charge of £228,000; plus
 - (ii) a charge of £229 for each discrepancy reported to the Contractor.
- 7.3 The charge referred to in Clause 7.2(i) shall be due on the date of this Agreement and shall be paid, together with VAT thereon, within 23 days of receipt by the Contractor of an invoice therefor.
- 7.4 The charge referred to in clause 7.2(ii) shall be invoiced and paid, together with VAT thereon, on a monthly basis, each invoice to be paid within 30 days of receipt thereof by the Contractor.
- 7.5 POCL shall be entitled to set off any amount owing to it under this clause 7 against any charges payable by it to the Contractor under the Codified Agreement.

8. Indemnity

- 8.1 The Contractor shall indemnify and keep indemnified POCL on demand (on an after tax basis) against all Liabilities (other than any costs and expenses incurred in applying the TIP Integrity Checking Process) which POCL may suffer or incur as a result of any matter or circumstance arising prior to the Accounting Integrity Control Release Date which it would not have suffered or incurred had the Accounting Integrity Control Release Date occurred on the date hereof.

- 8.2 The Contractor shall not be liable under clause 8.1 above in respect of any Liability suffered or incurred by POCL to the extent that such Liability would not have been suffered or incurred but for a failure by POCL to apply the TIP Integrity Checking Process in accordance with POCL's procedures therefor.
- 8.3 In the event of any matter or circumstance arising in respect of which the Contractor may be liable under clause 8.1 above, POCL shall promptly notify the Contractor of such matter and shall permit the Contractor, at the Contractor's expense, for a period of four weeks from notification of such matter to investigate and seek to resolve the matter and/or mitigate the Liability in question. POCL shall provide to the Contractor, at the Contractor's expense, such co-operation as the Contractor shall reasonably request to enable the Contractor to take such action.
- 8.4 The provisions of clause 810 of the Codified Agreement shall apply to any liability of the Contractor under this Agreement. For the avoidance of doubt any liability incurred by the Contractor under this Agreement shall be included within the aggregate liability of the Contractor under the Codified Agreement for the purposes of Clause 810.2.3 of the Codified Agreement.

9. First Roll Out Payment

If by 13 November, 1999 Roll Out shall have occurred to a number of Outlets being less than 1,800 but not less than 1,600 then the First Progress Payment of £90 million under paragraph 1 of Schedule A12 to the Codified Agreement shall be reduced to £80 million (before any deduction pursuant to paragraph 7.2 of the said Schedule A12) and shall become due on the later of 1st November, 1999 and the date upon which Roll Out shall have occurred in 1,600 Outlets. If so, the second Progress Payment shall be payable as currently scheduled in paragraph 1 of Schedule A12 but shall be increased to £100 million (before any deduction pursuant to paragraph 7.2 of Schedule A12). The figures of £80 million and £100 million referred to in this clause equate to gross figures of £106.67 million and £133.33 million before retention of 25 per cent. from each figure in accordance with the said paragraph 1 of Schedule A12.

10. Further Delays

For the purposes of Clause 606.2.1 of the Codified Agreement any delay in Rollout of the Core System caused by the default of POCL shall be disregarded to the extent that the aggregate duration of all such delays does not exceed 42 days.

11. Further Obligations

The Codified Agreement (including as appropriate its schedules) shall be amended so as to impose upon the Contractor those additional ongoing obligations described in Schedule 5 and such other obligations (if any) required by the Rectification Plans and any documents referred to therein which the Parties agree should be treated as ongoing obligations (such agreement not to be unreasonably withheld).

12. Miscellaneous

- 12.1 The provisions of clause 603 of the Codified Agreement shall apply, mutatis mutandis, to any notice to be given by POCL under this Agreement.
- 12.2 No delay or omission by POCL in exercising any right, power or remedy under this Agreement shall:-
- (i) affect that right, power or remedy; or
 - (ii) operate as a waiver of it.
- 12.3 The single or partial exercise of any right, power or remedy under this Agreement shall not preclude any other or further exercise of it or the exercise of any other right, power or remedy.
- 12.4 The rights, powers and remedies provided in this Agreement are cumulative and not exclusive of any rights, powers and remedies provided by law.
- 12.5 Any payment to be made by the Contractor under clause 8.1 of this Agreement shall be made without deduction or set off on any account whatsoever.
- 12.6 The provisions of this Agreement shall be deemed to be incorporated as appropriate as amendments to the Codified Agreement.
- 12.7 Except to the extent expressly amended by this Agreement the provisions of the Codified Agreement and its schedules shall continue unamended and in full force and effect.

IN WITNESS WHEREOF this Second Supplemental Agreement has been executed on behalf of the parties as follows:-

SCHEDULE 1

Outstanding Category (a) and (b) Faults

Part A

Substantive New Faults Reported after 3rd September, 1999

[None]

Part B

Acceptance Incidents with Rectification Plans

Acceptance Incidents 211, 218, 298, 314, 342, 369,
372, 376, 378, 390, 391, 408 and 412

each as described in the corresponding Acceptance Incident Forms contained in the
Annex to this Agreement

SCHEDULE 2

Rectification Plans

For Remedy of Outstanding Acceptance Incidents

Documents referred to in the text of this Schedule and the timetable are annexed to this Agreement. That Annex has been initialled for the purposes of identification.

1. AIN 211
 - 1.1 The Contractor shall apply each of the fixes detailed in the Acceptance Incident Analysis Form for AIN 211 ("Form 211") by the date specified for such fix in Form 211.
 - 1.2 Where no date is specified in Form 211 for the application of a fix, the Contractor confirms that that fix has been successfully applied for all Outlets to which Rollout has occurred as of the date of this Agreement.
 - 1.3 The Contractor shall monitor the effectiveness of the action taken by it to resolve the incident.
 - 1.4 When the monitoring referred to in paragraph 1.3 demonstrates over a period of four consecutive weeks that resolution of AIN 211 has been achieved, then POCL will close AIN 211.
2. AIN 218
 - 2.1 Each of the Contractor and POCL shall complete the steps and achieve the objectives applicable to it (the "218 Obligations") detailed in section 3 and the Contractor shall meet the critical success factors (the "Criteria") detailed in the table headed "Critical Success Factors" in Document CR/ACD/218 (Version 0.5) (dated 23rd September, 1999).
 - 2.2 Each of the Contractor and POCL shall fulfil each of the 218 Obligations applicable to it and the Contractor shall ensure that all the Criteria are met by 31st December, 1999.
 - 2.3 When the 218 Obligations and all the Criteria shall have been satisfied, then POCL will close AIN 218.
3. AIN 298
 - 3.1 Each of the Contractor and POCL shall complete the steps and achieve the objectives applicable to it (the "298 Obligations") detailed in section 5 of Document CR/ACD/298 (Version 0.8) (dated 23rd September, 1999) ("CR/ACD/298") and where that section identifies one party as fulfilling an action, the other party shall assist the aforementioned party to reach a successful conclusion.

- 3.2 Each of the Contractor and POCL shall complete each of the 298 Obligations applicable to it by the dates and to the standards set out in section 5 of CR/ACD/298.
- 3.3 Without prejudice to the generality of the above paragraphs 3.1 and 3.2, the criteria to be met in respect of AIN 298 by 24th November, 1999 are as set out in Part A of Schedule 4 of this Agreement.
- 3.4 The Contractor shall, until closure of AIN 298, record and report to POCL such data as shall be necessary to enable POCL to calculate the number of Units being recorded as defined in paragraph 3 of Part A of Schedule 4 to this Agreement.
- 3.5 For the avoidance of doubt, it is agreed that the Contractor shall be permitted to continue the good business practice of carrying out planned reboots outside working hours, such planned reboots not to exceed an average of one per Counter Position per month.
- 3.6 Without prejudice to the generality of the above paragraphs 3.1 and 3.2, as described in paragraph 5.5.2 of CR/ACD/298, the Contractor shall produce and deliver to POCL by 30th October, 1999 the document referred to in that paragraph for review and agreement by 24th November, 1999 and the Contractor shall implement the provisions of that revised document by 24th November, 1999.
- 3.7 When the criteria in paragraph 3.3 and the obligations in paragraph 3.6 shall have been satisfied, POCL will close AIN 298.
- 4. AIN 314
 - 4.1 The Contractor shall produce and deliver to POCL a document entitled "ICL Pathway Generalised API for OPS/TMS" (the "API Document").
 - 4.2 The Contractor shall produce the API Document in accordance with sections 2 ("Scope"), 3 ("Document Standards") and 4 ("Content of ICL Pathway Generalised API for OPS/TMS") of Document CR/SPE/007 (Version 0.3) (dated 7th September, 1999) ("CR/SPE/007").
 - 4.3 The Contractor and POCL shall review the version of the API Document referred to in sub-paragraph 4.4(A) as described in section 3 of CR/SPE/007.
 - 4.4 The Contractor shall produce and deliver the API Document to POCL:
 - (A) as a version for review without the "Appendix" (as defined in paragraph 5(A) of CR/SPE/007) before 1st December, 1999;

- (B) as a revised version without the Appendix incorporating the changes arising from the review referred to in the above sub-paragraph 4.4(A) and paragraph 4.3 as a CCN before 28th December, 1999; and
 - (C) with the Appendix before 1st February, 2000 as a CCN.
- 4.5 POCL will close AIN 314 on approval of the CCN referred to in sub-paragraph 4.4(C).
- 5. AIN 342
 - 5.1 Until 1st October, 1999 the Contractor shall monitor the operation of the procedures detailed in the Acceptance Incident Analysis Form for AIN 342 ("Form 342") under the heading "New Procedures".
 - 5.2 The Contractor shall ensure that the daily automatic and email reports described in Form 342 under the headings "Program Changes Required" and "New Procedures" (under sub-heading "b. Central Processing Delays", paragraph 2) are produced.
 - 5.3 When the monitoring detailed in paragraph 5.1, or such other monitoring as the parties may agree, demonstrates that AIN 342 has been resolved and the requirements of paragraph 5.2 are being fulfilled, POCL will close AIN 342.
- 6. AIN 369
 - 6.1 Each of the Contractor and POCL shall complete the steps and achieve the objectives applicable to it (the "369 Obligations") detailed in the table (in two parts) extracted from Document BA/ACC/020 (version 0.4) (dated 20th September) ("BA/ACC/020") and where that table identifies one party as fulfilling an action, the other party shall assist the aforementioned party to reach a successful conclusion.
 - 6.2 Each of the Contractor and POCL shall complete each of the 369 Obligations applicable to it by 31st December, 1999.
 - 6.3 When the 369 Obligations shall have been satisfied by the Contractor and POCL, POCL will close AIN 369.
 - 6.4 On the completion of the Contractor's 369 Obligations where the Contractor has taken the lead on actions to be fulfilled (as referred to in BA/ACC/020), POCL shall confirm to the Contractor in writing that such obligations have been completed. However, this confirmation shall not affect any other of the Contractor's obligations to ensure that AIN 369 is ultimately resolved, in accordance with BA/ACC/020.

7. AIN 372
- 7.1 The Contractor shall complete the steps detailed in Document CR/ACD/372 (Version 0.4) (dated 16th September, 1999) ("CR/ACD/372") in paragraph 5.2:
- (A) at sub-paragraph 6 (headed ".dll checking") by the time at which the step detailed in paragraph 7.4 below is completed; and
 - (B) at sub-paragraph 3 by the later of the completion of the steps detailed in sub-paragraphs 7.2(A) and 7.2(B) below plus one week.
- 7.2 The Contractor shall complete the steps detailed in CR/ACD/372 in paragraph 5.2 at sub-paragraph 7, in the case of:
- (A) running the software distribution of the "Riposte Peripheral Server (Update Number 20)" by 16th December, 1999, although the Contractor shall aim to ensure distribution by 30th September, 1999; and
 - (B) running the software distribution of the "Consolidated EPOSS/Counter Applications Upgrade" by 16th December, 1999, although the Contractor shall aim to ensure distribution by 15th October, 1999.
- 7.3 The Contractor shall supply the appropriate supporting documentation as described in paragraph 5.2 of CR/ACD/372 by 1st November, 1999.
- 7.4 The Contractor shall review the software distribution undertaken in pursuance of the above sub-paragraphs 7.2(A) and (B) in accordance with paragraph 5.2.1 of CR/ACD/372 by 16th March, 2000, or if earlier, three months from the date on which the steps detailed in paragraph 7.2 above are both completed.
- 7.5 When the obligations referred to in sub-paragraphs 5.2(3) and 5.2(6) of CR/ACD/372, the software distributions referred to in the above paragraph 7.2, the supply of the supporting documentation referred to in paragraph 7.3 above; and the review of the software distribution referred to in paragraph 7.4 above shall have been completed, POCL will close AIN 372.
8. AIN 376
- 8.1 Each of the Contractor and POCL shall complete the steps and achieve the objectives applicable to it (the "376 Obligations") set out in Document CR/ACD/376 (Version 0.9) (dated 23rd September, 1999) ("CR/ACD/376") and where that document identifies one party as fulfilling an action, the other party shall assist the aforementioned party to reach a successful conclusion.
- 8.2 Each of the Contractor and POCL shall complete each of the 376 Obligations applicable to it by the dates and to the standards set out in CR/ACD/376.

- 8.3 When the TIP Integrity Checking Period ends, POCL will close AIN 376.
9. AIN 378
- 9.1 In accordance with the details set out in the Acceptance Incident Analysis Form for AIN 378 ("Form 378") and in Document CR/ACD/378 (Version 0.3) (dated 16th September, 1999), the Contractor confirms that it has analysed the incidents in Form 378.
- 9.2 The Contractor shall apply a "Diagnostic", which shall be effective by 1st October, 1999, which shall:
- (A) detect and prevent null Cash Account IDs, if necessary by forcing the Outlet to re-run the cash account process; and
 - (B) log diagnostic messages to facilitate further analysis.
- 9.3 After a sufficient level of data has been acquired from the Diagnostic, the Contractor shall promptly determine the cause of TIP 916 and shall promptly apply an appropriate fix and monitor its application until the fix is successful for a continuous period of two weeks.
- 9.4 When the fix referred to in paragraph 9.3 shall have been successful for a continuous period of two weeks, POCL will close AIN 378.
10. AIN 390
- 10.1 As described in the Acceptance Incident Analysis Form for AIN 390 the Contractor shall introduce a facility whereby, subject to paragraph 10.2 below, following a crash of the APS at a counter and when undertaking session recovery or disaster recovery (for those transactions where a system receipt has been produced), the user shall still have the option of reserving a gap of transactions and delaying recovery to a more convenient time.
- 10.2 The facility detailed in the above paragraph 10.1 is subject to the qualification that in the event of a second crash occurring before the initial recovery is completed, the procedure shall be that the clerk shall undertake recovery of all those deferred transactions and then any other transactions that may have occurred as a result of the second crash.
- 10.3 The facility detailed in the above paragraph 10.1 shall be applied by the Contractor to all Outlets to which Roll-Out has occurred as at that date of application by 30th November, 1999 and the Contractor shall then monitor the facility.
- 10.4 When the monitoring referred to in paragraph 10.3 shall have demonstrated over a continuous period of two weeks that resolution of AIN 390 has been achieved, then POCL will close AIN 390.

11. AIN 391

- 11.1 The Contractor shall complete the steps (the "391 Obligations") detailed in paragraphs 5.1.2 and 5.2 of Document CR/ACD/391 (Version 1.0) (dated 13th September, 1999) ("CR/ACD/391") and POCL shall comply with its obligations under paragraph 5.2 of CR/ACD/391.
- 11.2 The Contractor shall complete the 391 Obligations in accordance with the timetable and standards set out in paragraphs 5.1.2 and 5.2 of CR/ACD/391.
- 11.3 When the obligations (with the exception of the obligations relating to timetable) detailed in paragraphs 11.1 and 11.2 shall have been completed, POCL will close the incident.

12. AIN 408

- 12.1 Each of the Contractor and POCL shall complete the outstanding steps applicable to it (the "408 Obligations") set out in the table in paragraph 5.4 of Document CR/ACD/408 (Version 1.5) (dated 23rd September, 1999) ("CR/ACD/408").
- 12.2 Each of the Contractor and POCL shall complete to a satisfactory standard the 408 Obligations applicable to it in accordance with the timetable set out in the table in paragraph 5.4 of CR/ACD/408.
- 12.3 When the obligations (with the exception of the obligations relating to timetable) detailed in paragraphs 12.1 and 12.2 shall have been completed, POCL will close the AIN 408.

13. AIN 412

- 13.1 Each of the Contractor and POCL shall complete the steps and objectives applicable to it (the "412 Obligations"), and all intermediate actions required to achieve those steps, set out in the table at Section 6 of Document CR/ACD/412 (Version 0.2) (dated 10th September, 1999) ("CR/ACD/412") and (with the exception of item 1 in that table) as described in more detail in section 5 of CR/ACD/412.
- 13.2 Each of the Contractor and POCL shall complete to a satisfactory standard the 412 Obligations applicable to it (and all intermediate steps and objectives) in accordance with the timetable set out at Section 6 of CR/ACD/412.
- 13.3 When the obligations (with the exception of the Obligations relating to timetable) detailed in paragraphs 13.1 and 13.2 shall have been completed, POCL will close incident 412.

SCHEDULE 3Revised Roll Out Programme"Roll Out ProgrammePart A

Week Commencing	Number of Outlets (inc. live trial)
Already rolled out	299
23/08/99	24
30/08/99	1
06/09/99	47
13/09/99	80
20/09/99	158
27/09/99	178
04/10/99	203
11/10/99	203
18/10/99	203
25/10/99	203
01/11/99	203
08/11/99	0
15/11/99	0
22/11/99	0
29/11/99	0
06/12/99	0
13/12/99	0
20/12/99	0
27/12/99	0
03/01/00	0
10/01/00	0
17/01/00	0
24/01/00	120
31/01/00	180
07/02/00	250
14/02/00	306
21/02/00	306
28/02/00	306
06/03/00	306
13/03/00	306
20/03/00	306
27/03/00	306
03/04/00	306
10/04/00	306
17/04/00	244
24/04/00	244
01/05/00	244
08/05/00	306
15/05/00	306
22/05/00	306
29/05/00	244
05/06/00	306

Week Commencing	Number of Outlets (inc. live trial)
12/06/00	306
19/06/00	306
26/06/00	306
03/07/00	306
10/07/00	306
17/07/00	306
24/07/00	306
31/07/00	306
07/08/00	306
14/08/00	306
21/08/00	306
28/08/00	244
04/09/00	306
22/09/00	306
18/09/00	306
25/09/00	306
02/10/00	306
09/10/00	306
16/10/00	306
23/10/00	306
30/10/00	306
06/11/00	306
13/11/00	306
20/11/00	306
27/11/00	306
04/12/00	306
11/12/00	0
18/12/00	0
25/12/00	0
01/01/01	0
08/01/01	306
15/01/01	306
22/01/01	306
29/01/01	306
05/02/01	306
12/02/01	290
19/02/01	275
26/02/01	265
05/03/01	237
Sub total	17,797

Part BOutlets to be Rolled Out under
Operational Business Change

Week Commencing	Number of Outlets (inc. live trial)
12/03/01	165
19/03/01	120
26/03/01	100
02/04/01	85
09/04/01	63
16/04/01	50
23/04/01	30
30/04/01	22
07/05/01	20
14/05/01	18
21/05/01	16
28/05/01	15
04/06/01	14
11/06/01	12
Sub total	730
National Roll Out Total	18,527

- 19

Part B

TIP Interface Accounting Integrity (A.I. 376)

The criteria to be met by 24th November, 1999 shall be as follows:-

- (i) during the period from 3rd October, 1999 until 14th November, 1999 the percentage of Cash Accounts received by POCL across the TIP Interface containing Cash Account Discrepancies shall not exceed 0.6 per cent of all such Cash Accounts;
- (ii) during the period from 3rd October, 1999 until 14th November, 1999, no Cash Account Discrepancy shall arise as a result of a cause previously reported to POCL as having been remedied;
- (iii) all new causes of Cash Account Discrepancies identified after the date of this Agreement shall have been properly analysed by the Contractor and suitable rectification plans therefor submitted to POCL in reasonable detail within ten days of the Contractor becoming aware of such Cash Account Discrepancy;
- (iv) The Contractor shall have satisfied POCL (POCL acting reasonably) that the Accounting Integrity Control Release would, had it been deployed at the relevant time, have identified all Cash Account Discrepancies reported prior to 24th November, 1999 which shall have arisen as a result of any new cause identified after the date of this Agreement; and
- (v) those elements of the Rectification Plan for Acceptance Incident 376 required to have been carried out by 24th November, 1999 shall have been duly carried out.

Part C

Helpdesk Performance (A.I. 408)

The criteria to be met by 24th November, 1999 are as follows:-

(a) Service Targets

That each of the following service targets, measured on a weekly basis, shall be met in at least four of the six weeks which fall between 4th October, 1999 and 14th November, 1999 (but so that not all such service targets have to be met in the same four weeks):-

- (i) that part of the service target referred to in paragraph 4.3.2.1 of Schedule G10 to the Codified Agreement as refers to the answering of at least 80% of all calls to the Help Desk within 20 seconds;
- (ii) the service target contained in paragraph 4.3.2.3 of the said Schedule G10;
- (iii) the service target contained in paragraph 4.3.2.4 of the said Schedule G10;
- (iv) the service targets contained in paragraph 4.3.2.5 of the said Schedule G10; and
- (v) the service targets contained in paragraph 4 of Schedule 5.

Part D

TIP Interface
Accounting Integrity (A.1.376)

The criteria to be met by 14th January, 2000 are as follows:-

- (i) during the period from 3rd October, 1999 until 14th January, 2000 the percentage of Cash Accounts received by POCL across the TIP Interface containing Cash Account Discrepancies shall not exceed 0.6 per cent. of all such Cash Accounts;
- (ii) during the period from 3rd October, 1999 until 14th January, 2000 no Cash Account Discrepancy shall arise as a result of a cause previously reported to POCL as having been remedied; and
- (iii) all new causes of Cash Account Discrepancies identified after the date of this Agreement shall have been properly analysed by the Contractor and suitable rectification plans therefor submitted to POCL in reasonable detail within ten days of the Contractor becoming aware of such Cash Account Discrepancy.

SCHEDULE 5

Additional Obligations

1. System Stability

A new paragraph 4.6 shall be added to Schedule G10 to the Codified Agreement as follows:-

"4.6 Reboot Incidents

- 4.6.1 The Contractor shall use all reasonable endeavours to ensure that the number of Reboot Incidents reported to the Help Desk does not exceed the equivalent of one Reboot Incident per automated Counter Position in any period of four months.
- 4.6.2 For the purposes of paragraph 4.6.1 above "Reboot Incident" shall mean Help Desk authorised reboots, Help Desk authorised office snapshot print previews and any work-arounds authorised by the Help Desk to remove the necessity to carry out a reboot or office snapshot print preview where the time taken to carry out such work-around (as demonstrated by the Contractor in the test environment normally used to validate test scripts) is four minutes or longer."
- 4.6.3 For the avoidance of doubt, it is agreed that the Contractor shall be permitted to continue the good business practice of carrying out planned reboots outside working hours, such planned reboots not to exceed one per count position per month.

2. Training

A new obligation shall be imposed upon the Contractor as follows:-

"The Contractor shall:-

- (i) in relation to those Outlets to which Rollout is scheduled to take place in or after January, 2000 run 370 half day training events for 4,400 office managers (or such lesser number as POCL may require) in accordance with the specification contained in the document IM/PRO/172, version 0.2 - specification of pre-entry event;
- (ii) with effect from the date of this Agreement deploy the processes and procedures set out in the document IM/PRD/066, version 0.2 - Monitoring of Trainer Quality;

- (iii) with effect from 27th October, 1999, implement the new P.S.A. process defined in the document entitled Pathway Performance Standard Assessment Proposal, Low Level Plan.

3. Monitoring of Non-Polled Outlets

A new obligation shall be imposed on the Contractor to operate, with effect from the date of closure of Acceptance Incident 342, the new reporting process described in CP2078, which will produce an automatic report of Outlets in respect of which there is no End of Day marker in the central journal file and shall ensure that such report is e-mailed daily to the Business Support Unit and logged with the Help Desk for immediate investigation.

4. Help Desk Service Targets

New paragraphs 4.3.2.7, 4.3.2.8 and 4.3.2.9 shall be added to Schedule G10 to the Codified Agreement as follows:-

- | | |
|----------|--|
| “4.3.2.7 | 100% of calls made to the Help Desk seeking advice and/or guidance relating to cash accounts shall be answered and satisfactorily dealt with, as and when first received, by personnel skilled in providing such advice and/or guidance. |
| 4.3.2.8 | No call will be made to the Help Desk from any Outlet seeking the same advice or guidance in relation to a cash account as another call from the same Outlet in the same accounting period. |
| 4.3.2.9 | Approved call scripts shall be correctly followed by Help Desk staff in 95% of all calls, as measured by reviews of call records carried out from time to time by POCL.” |

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GRO

Signed by
for and on behalf of
POST OFFICE
COUNTERS LTD. in the
presence of:-

GRO

Signed by *R. CHRISTO*
for and on behalf of
ICL PATHWAY LIMITED
in the presence of:-

GRO

CA992450029

*LONDON ECI
SOLICITOR*

GRO

GRO

EMERGENCY CCN 562

To the Codified Agreement dated 28th July, 1999

Issue Date: 24th September, 1999

POCL Authority:

ICL Pathway Authority:

GRO

- 1) A new paragraph 3.6 shall be added to Schedule G1 to the Codified Agreement as follows:

3.6 Data Errors

3.6.1.1 Subject to sub paragraph 3.6.3 below, if the Contractor discovers any error occurring in transaction records or cash account stream records other than the errors described in sub paragraph 3.6.1.2 below ("Data Errors") prior to the relevant record being transmitted by the Contractor to POCL over the TIP Interface, the Contractor shall not transmit the relevant record but shall retain it and promptly issue to POCL a manual error report complying with sub-paragraph 3.6.2 below (a "Manual Error Report").

3.6.1.2 The following errors shall not be Data Errors:-

3.6.1.2.1 errors which are caused by invalid data input by Users in Outlets and are not detected by the process introduced by the Accounting Integrity Control Release;

3.6.1.2.2 errors caused by Reference Data (correctly applied by Pathway) which preclude transactions from being correctly taken into account in the subsequent cash account;

3.6.1.2.3 Cash accounts which are incomplete by reason of erroneous Reference Data provided by POCL.

3.6.2 Each Manual Error Report shall include a full specification of the relevant record following correction of the Data Error (the "Repaired Data"), in a format suitable for POCL to key into a POCL Data input facility.

Electronic Submission of Repaired Data

3.6.3 If in any cash account week the number of Data Errors exceeds 50 the provisions of paragraph 3.6.1.1 above shall not apply in respect of Data Errors occurring in that cash account week (except to the extent that Manual Error Reports shall already have

been submitted to POCL). In that event the Contractor shall, unless otherwise agreed by POCL:

- a) withhold the relevant record;
- b) correct the relevant Data Error; and
- c) submit the relevant record containing the Repaired Data for electronic transmission over the Data Interface.

3.6.4 Where a Data Error shall not have been discovered prior to transmission of the relevant transaction record but is subsequently discovered by the application of a weekly checking process (such Data Error being hereafter referred to as a "Weekly Data Error") the provisions of paragraph 3.6.3 above shall not apply to such Weekly Data Error. Instead such Weekly Data Error shall (subject to paragraph 3.6.6 below) be dealt with by the issue of a Manual Error Report as specified in paragraph 3.6.1.1 above notwithstanding that the total number of Data Errors in the relevant week may have exceeded 50.

3.6.5 If the number of Weekly Data Errors exceeds twenty in any week the Contractor shall, in consultation with POCL, review the process introduced by the Accounting Integrity Control Release with a view to enhancing such process in order to detect the relevant Data Errors prior to transmission of the relevant data and to identify and correct root causes of such Data Errors.

3.6.6 If the number of Weekly Data Errors exceeds fifty in any week POCL shall be entitled to require the Repaired Data relating to such Weekly Data Errors to be dealt with in accordance with sub paragraphs (b) and (c) of paragraph 3.6.3 and not paragraph 3.6.4.

3.6.7 The Contractor undertakes that it will apply on a daily basis those checks required by the TIP Control CCD to be so carried out and that all Data Errors discovered thereby will then be dealt with in accordance with sub-paragraph 3.6.1.1 or 3.6.3 as appropriate.

3.6.8 The Contractor undertakes that the delay between the occurrence of a Data Error (or in the case of a Weekly Data Error, its detection) and the notification of the Repaired

Data to POCL (either by manual error report or electronically pursuant to paragraph 3.6.3 above) shall not exceed five working days.

- 3.6.9 Where the Contractor is required to make an assumption in order to correct a Data Error and/or present Repaired Data, the Contractor shall make such assumption and promptly inform POCL of the assumption made.
- 3.6.10 The Contractor shall pay to POCL 30 days after the end of each month a sum to compensate POCL for its costs in dealing with Manual Error Reports equal to £150 per Data Error discovered after transmission of the relevant data and £100 per other Data Error occurring in the cash account weeks ending during that month.

Other Discrepancies

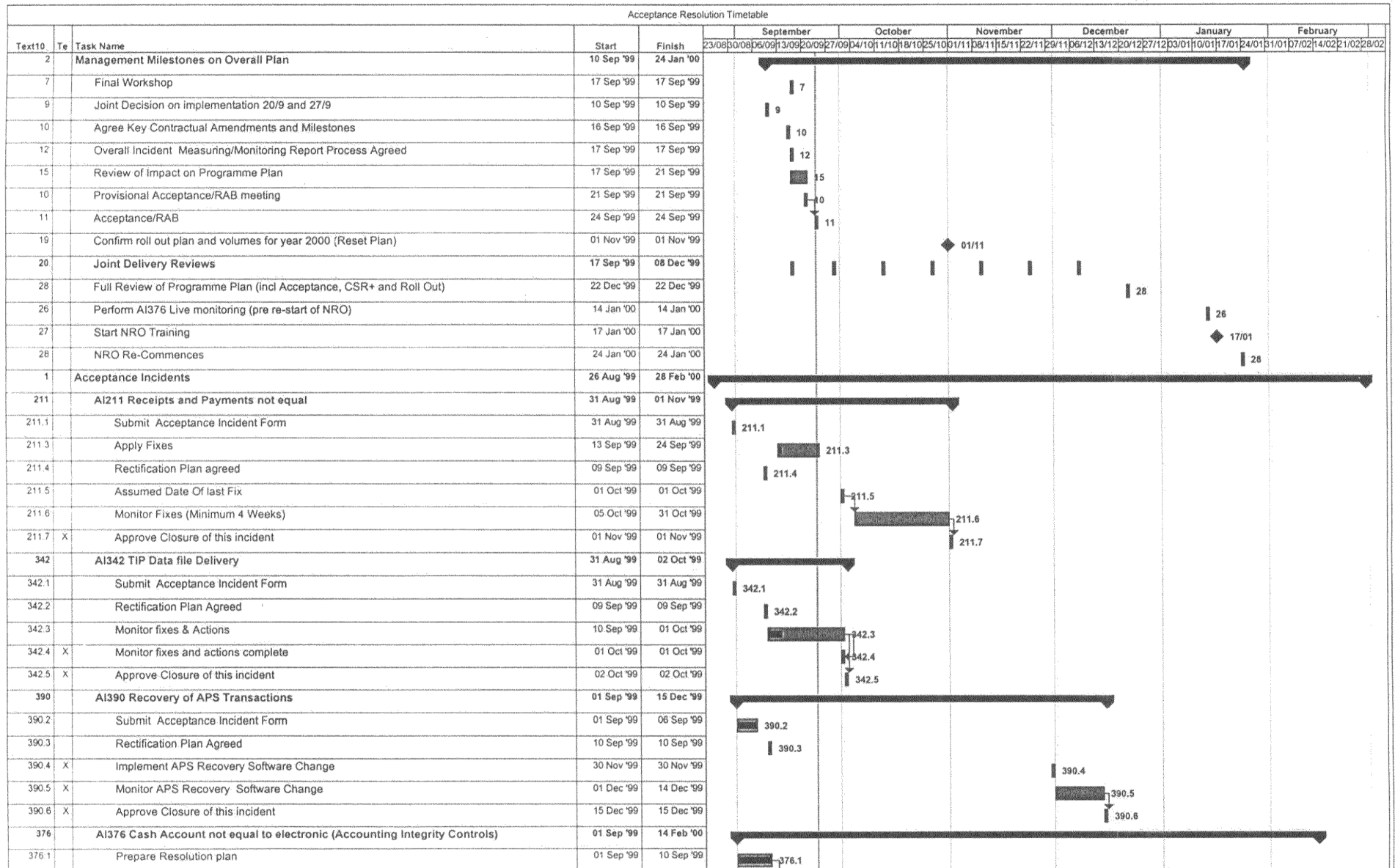
- 3.6.11 The Contractor shall, following discovery of any discrepancy of the nature described in paragraph 3.6.1.2.2 or 3.6.1.2.3 above, promptly issue a report to POCL containing a brief description of the discrepancy and shall co-operate with POCL to investigate and resolve such discrepancy.
- 2) This CCN 562 also modifies Acceptance Resolution Plan 376 (Reference CR/ACD/376 Version 0.9 Dated 23rd September 1999); paragraph 5.3.3. thereof shall be amended as appropriate to be consistent with the provisions of Clause 1 of this CCN 562 to the intent that the procedures and obligations set out in Clause 1 of this CCN562 shall take precedence over, and replace, the procedures and obligations set out in numbered paragraphs 1 to 5 (inclusive) of the said paragraph 5.3.3.

Rectification Timetable

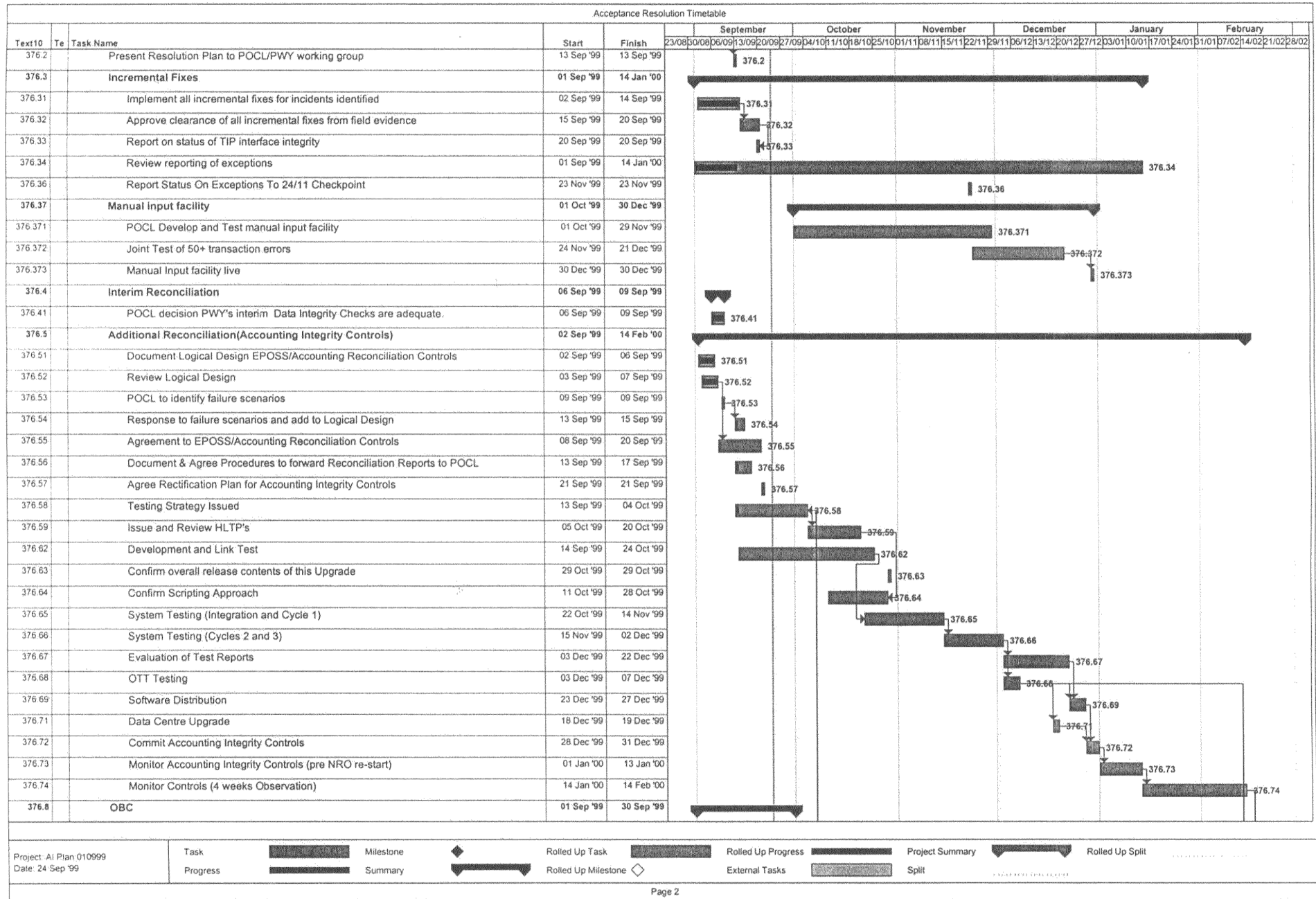
as referred to in the Second Supplemental Agreement.

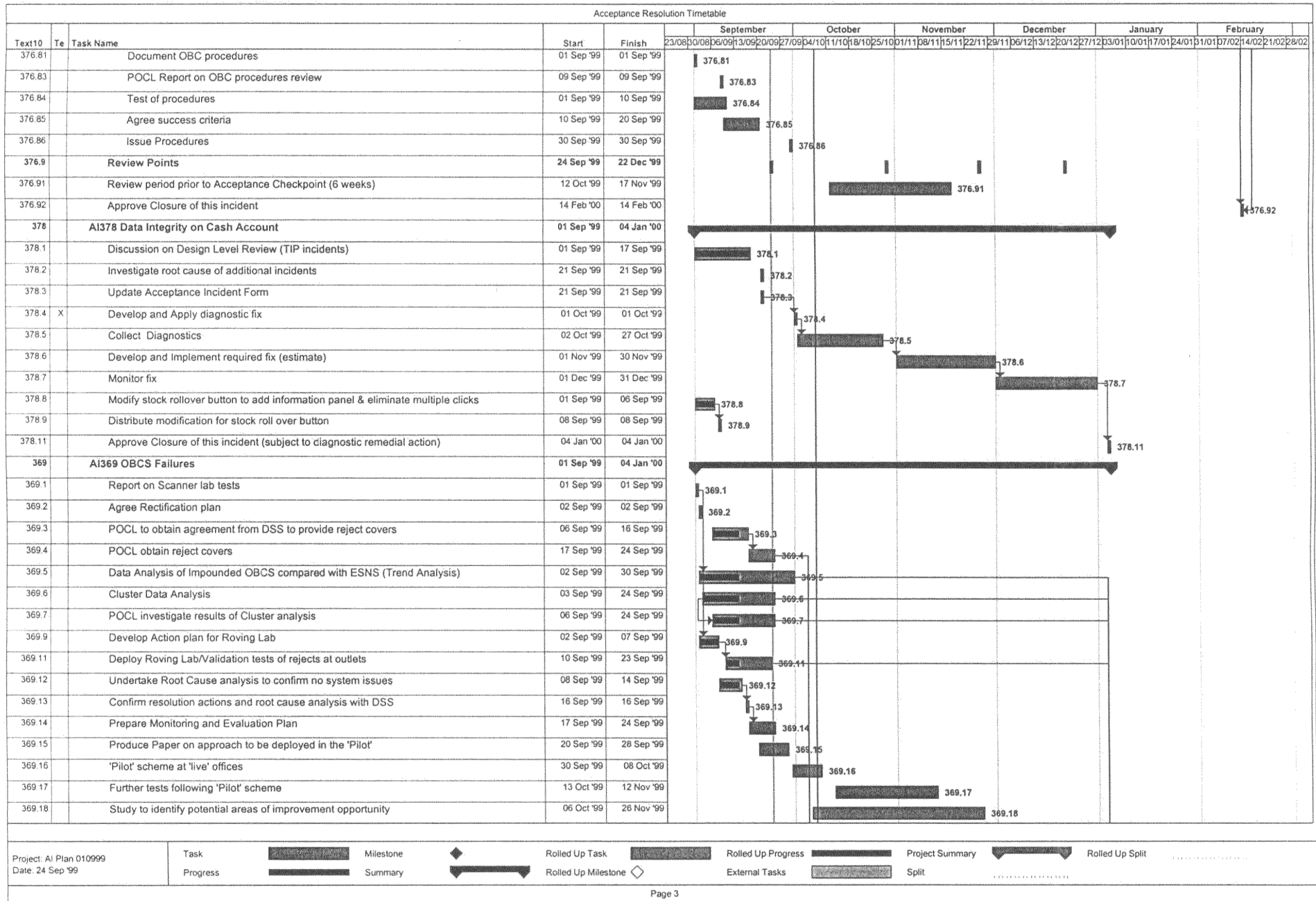
Initialed by the parties:

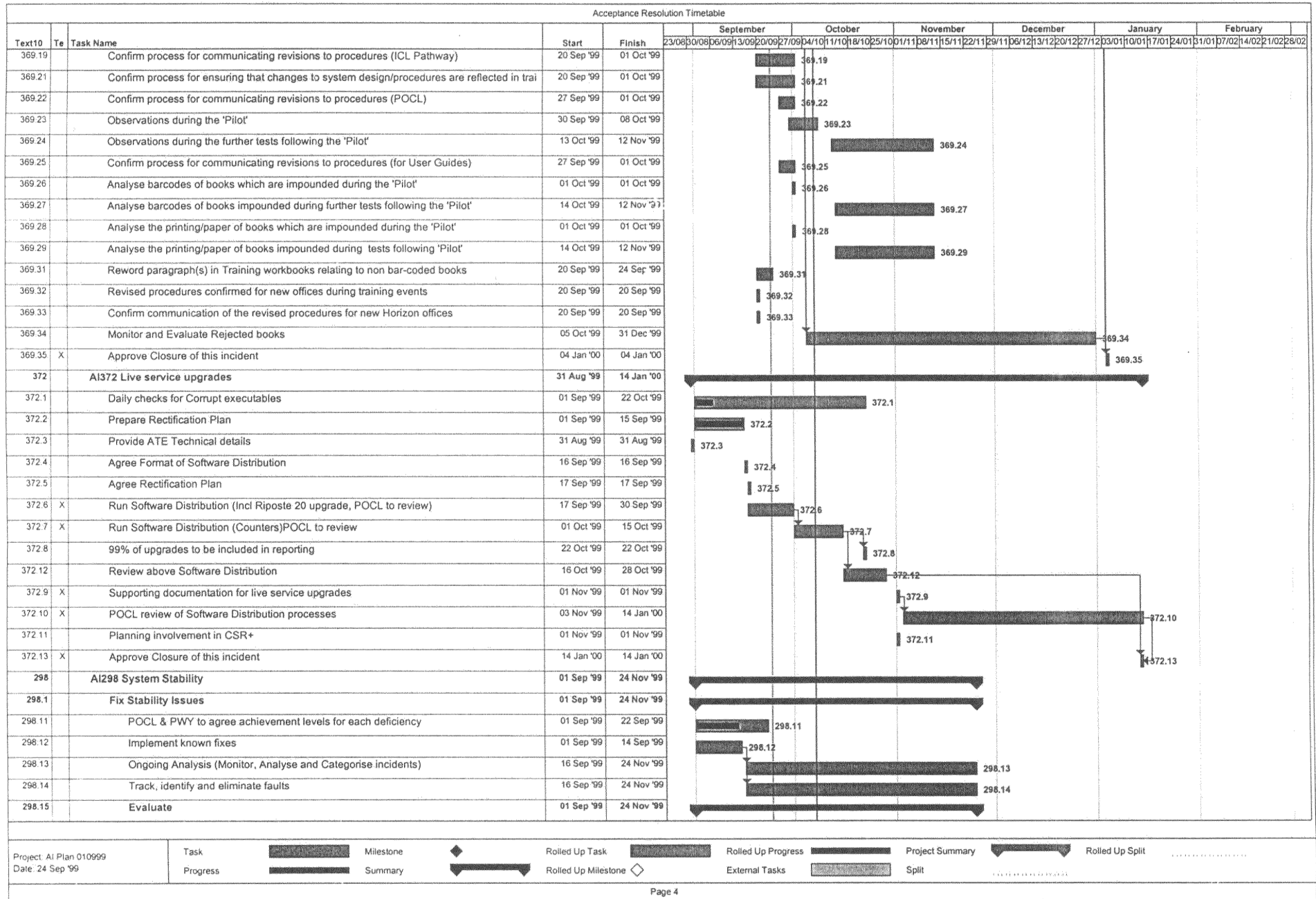
GRO

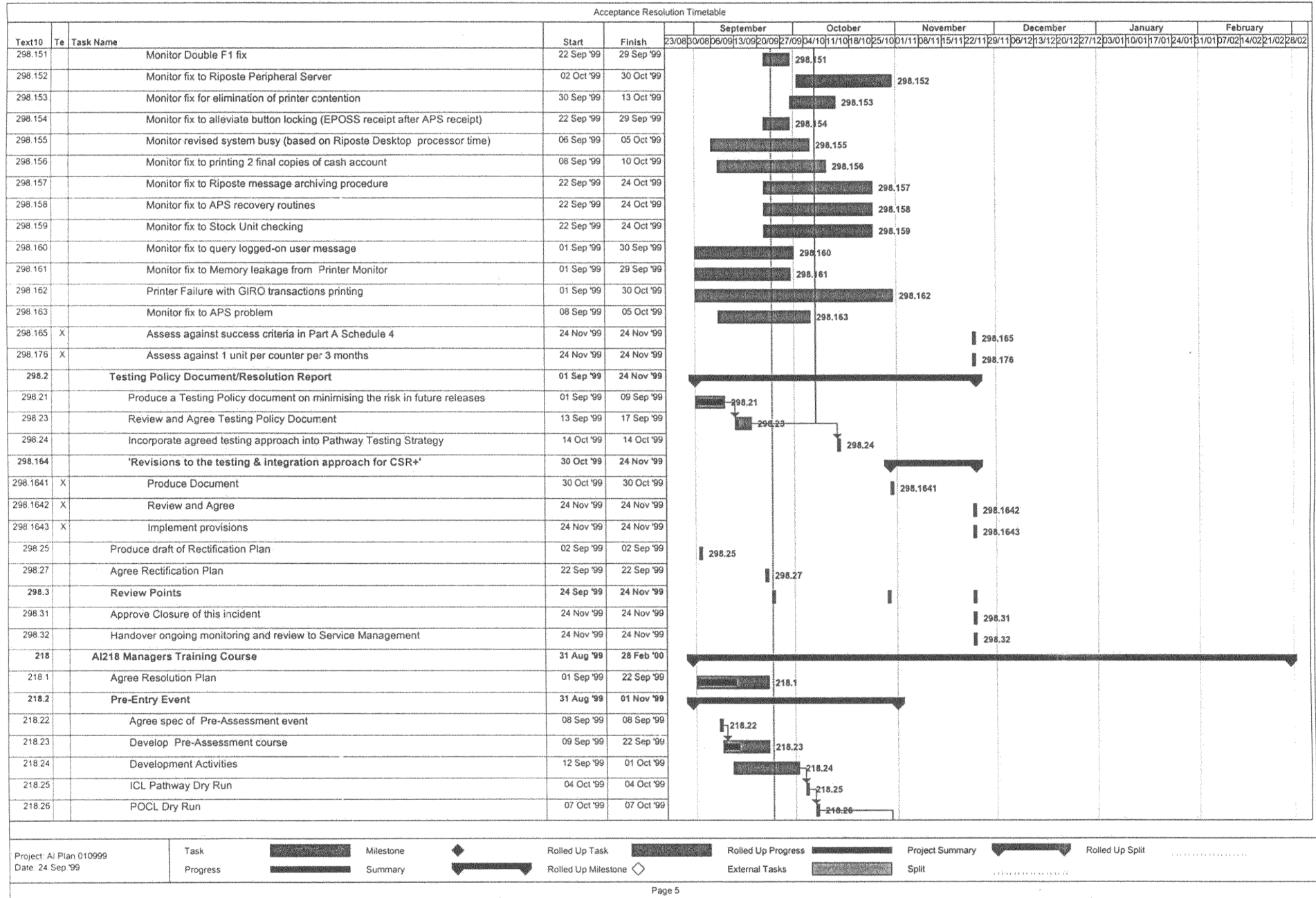
Project: AI Plan 010999
Date: 24 Sep '99Task
ProgressMilestone
SummaryRolled Up Task
Rolled Up MilestoneRolled Up Progress
External TasksProject Summary
Split

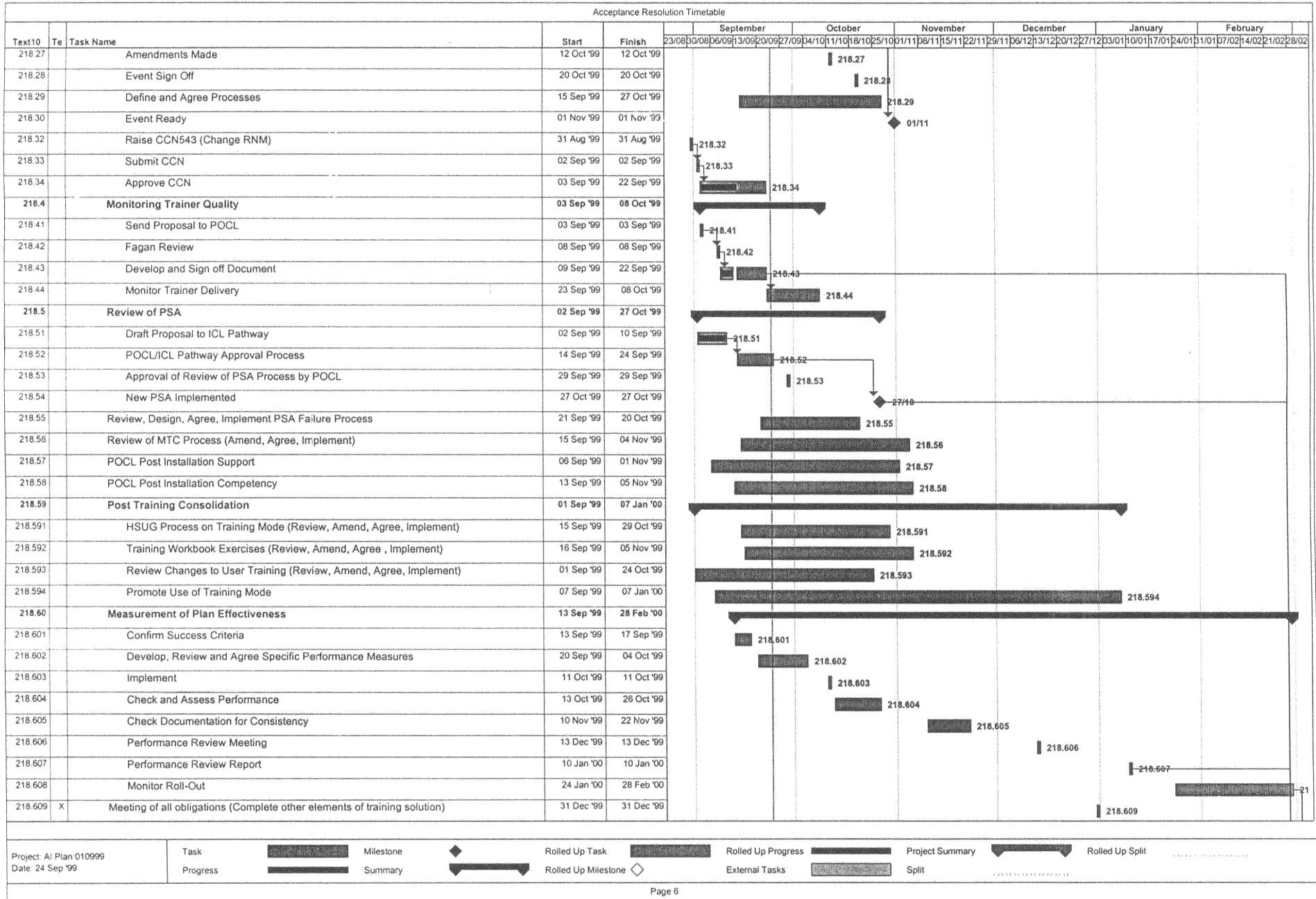
Rolled Up Split

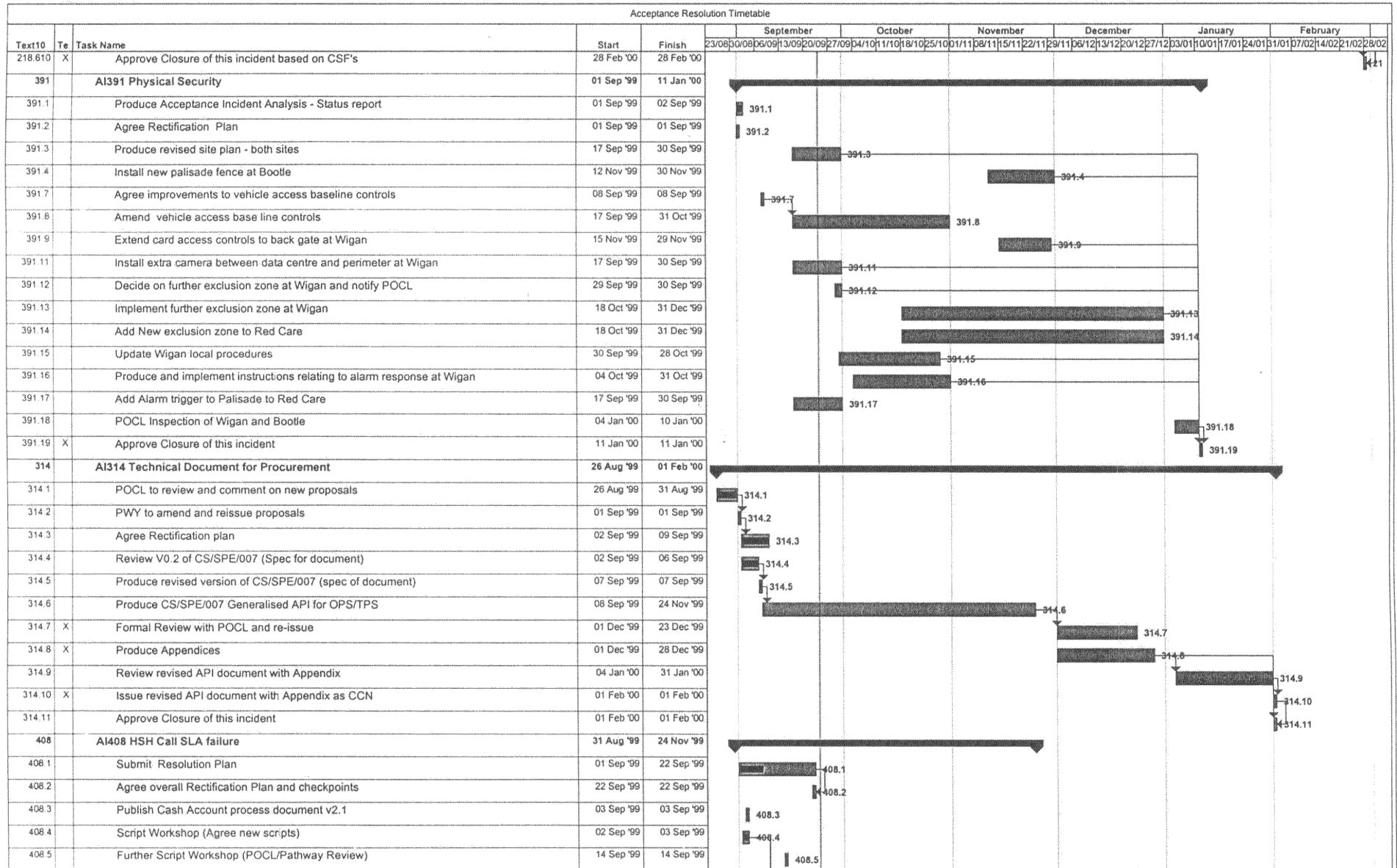




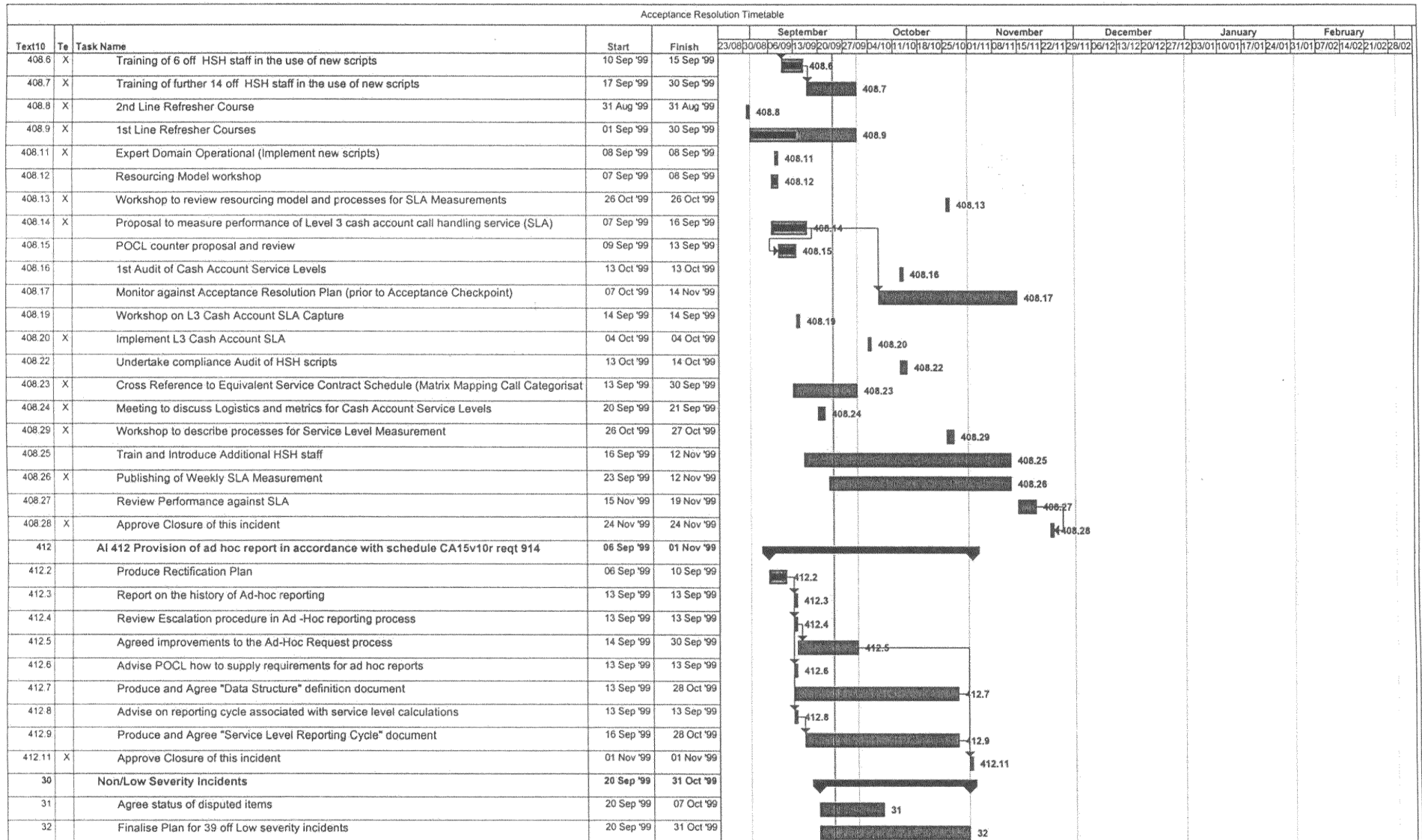






Project: AI Plan 010999
Date: 24 Sep '99Task
ProgressMilestone
SummaryRolled Up Task
Rolled Up MilestoneRolled Up Progress
External TasksProject Summary
Split

Rolled Up Split

Project: AI Plan 010999
Date: 24 Sep '99Task
ProgressMilestone
SummaryRolled Up Task
Rolled Up MilestoneRolled Up Progress
External TasksProject Summary
Split

Rolled Up Split

THIS SIDE AGREEMENT, being Change Control Note (CCN) No 561 is made the 24th day of September, 1999

BETWEEN:

- 1) **POST OFFICE COUNTERS LTD.** whose registered office is at Gavrelle House, 2-14 Bunhill Row, London EC1Y 8HQ; and
- 2) **ICL PATHWAY LIMITED** whose registered office is at 26 Finsbury Square, London EC2A 1SL (the "Contractor")

WHEREAS:

- a) The parties have today entered into a Second Supplemental Agreement (the "Second Supplemental Agreement") to the Codified Agreement (the "Codified Agreement") between the parties dated 28th July, 1999.
- b) The parties entered into a Supplemental Agreement dated 20th August, 1999, to the Codified Agreement (the "First Supplemental Agreement").
- c) This Side Agreement (the "Side Agreement") constitutes CCN No 561 to the Codified Agreement.
- d) Through the execution of this Side Agreement the parties wish to agree to co-operate with each other with a view to optimising their available Rollout resources and minimising the occurrence of fluctuations in workloads.

It is Agreed as follows:

1. INTERPRETATION

- 1.1 Words and expressions defined in the Second Supplemental Agreement, the First Supplemental Agreement or the Codified Agreement shall bear the same meanings when used in this Agreement.
- 1.2 In this Agreement the expression "POCL" shall bear the meaning ascribed thereto in the Codified Agreement.
- 1.3 Unless the context otherwise requires references in this Agreement to clauses and recitals are to clauses and recitals to this Agreement.

2. COOPERATION

Each of the Contractor and POCL agrees to co-operate with the other:

- a) to optimise utilisation of the Contractor's and POCL's available Rollout resources; and
- b) to minimise the occurrence of fluctuation in POCL's and the Contractor's workloads during Rollout.

3. PARTICULAR OBLIGATIONS

Without prejudice to the generality of the obligations contained in the above Clause 2:

- a) POCL will implement a policy change with effect from 1st October 1999, so that each subpostmaster will be given specific dates for training and implementation and will only be allowed to refuse those specific dates in exceptional circumstances. Following the implementation of such policy change the Contractor shall produce a Rollout plan which is evenly balanced between days of the week in which Rollout is scheduled to take place.
- b) POCL will undertake in-office data migration of up to 315 Outlets per five day working week (the "Number"). The Number shall be proportionately less in weeks including public holidays. POCL will use its reasonable endeavours to undertake in-office data migration in more than the Number of Outlets to the extent necessary to accommodate variations from the Roll Out Programme due to variations from anticipated dropout rates.
- c) POCL and the Contractor shall work together to agree Rollout plans for each of the four implementation programme areas (each being an "Area"), so as to minimise week-on-week variation in workload (after making appropriate adjustments for public holidays and increases and decreases of work in each Area so as to achieve in aggregate the weekly requirements of the Roll Out Programme), to the extent that this is practicable given other constraints (which without limitation shall include the geographical distribution of Outlets and any other constraints) (for each Area, the "Area Implementation Programme").
- d) The Contractor and POCL shall agree procedures such that POCL is given by the Contractor as much advance notice as is practicable of numbers of Outlets dropping out of each Area Implementation Programme on completion of training so as to enable POCL to undertake short-term re-balancing of resources between Area Implementation Programmes.

4. DEVELOPMENT OF PROCESSES AND REVIEW

The Contractor and POCL shall work together to develop processes to support the obligations detailed in Clauses 2 and 3 above, and will review these processes jointly by 1st November 1999.

5. MISCELLANEOUS

- 5.1 The provisions of clause 603 of the Codified Agreement shall apply, mutatis mutandis, to any notice to be given under this Agreement.
- 5.2 No delay or omission in exercising any right, power or remedy under this Agreement shall:
 - i) affect that right, power or remedy; or
 - ii) operate as a waiver of it.

- 5.3 The single or partial exercise of any right, power or remedy under this Agreement shall not preclude any other or further exercise of it or the exercise of any other right, power or remedy.
- 5.4 The rights, powers and remedies provided in this Agreement are cumulative and are not exclusive of any rights, powers and remedies provided by law.
- 5.5 The provision of this Agreement shall be deemed to be incorporated as appropriate amendments to the Codified Agreement.
- 5.6 Except to the extent expressly amended by this Agreement, the provisions of the Codified Agreement and its schedules shall continue unamended and in full force and effect.

IN WITNESS WHEREOF THIS Side Agreement has been executed on behalf of the parties as follows:

Signed by:
for and on behalf of:
POST OFFICE COUNTERS LTD., in
the presence of:

GRO

GRO

Signed by: **GRO**
for and on behalf of:
ICL PATHWAY LIMITED, in
the presence of:

GRO

GRO

ANNEX

GRO

PART 1

AIN 211
AIN 218
AIN 298
AIN 314
AIN 342
AIN 369
AIN 372
AIN 376
AIN 378
AIN 390
AIN 391
AIN 408
AIN 412

PART 2

AIN 211	analysis	dated 20/09/99
AIN 218	document	CR/ACD/218 version 0.5 dated 23/09/99
AIN 298	document	CR/ACD/298 version 0.8 dated 23/09/99
AIN 314	document	CR/SPE/007 version 0.3 dated 07/09/99
AIN 342	analysis	dated 16/09/99
AIN 369	table from	BA/ACC/020 version 0.4 dated 20/09/99
AIN 372	document	CR/ACD/372 version 0.4 dated 16/09/99
AIN 376	document	CR/ACD/376 version 0.9 dated 23/09/99
	document	PI/DES/002 version 0.7 dated 20/9/99
AIN 378	analysis	dated 16/09/99
	document	CR/ACD/378 version 0.3 dated 16/09/99
AIN 390	analysis	dated 16/09/99
AIN 391	document	CR/ACD/391 version 1.0 dated 13/09/99
AIN 408	document	CR/ACD/408 version 1.5 dated 23/09/99
AIN 412	document	CR/ACD/412 version 0.2 dated 10/09/99

Second Supplemental Agreement Annex to Schedule 2

Acceptance Incident Form		Acceptance Incident Number (1) 211	
Acceptance Test Name (2) EPOSS		Source (3) BSM	Date Observed (4) 04/05/99
Witness/Reviewer who observed Incident (Owner) (5) Calum Craig			Authority (6)
Incident Type (7)	Criterion Reference (8) (if criterion not met)		Incident Severity (9)
☒ Criterion not met ☐ Substantive fault ☐ Other			☐ High ☒ Medium ☐ Low ☐ Pending ☐ None
Description of Incident (10) Receipts and payments do not equal on the cash account. The receipts total is different from the payments total when printing off the cash account. This was originally thought to be a migration problem only however the fault has now been replicated on a cash account following the migration week. 4 new occurrences of the receipts and payments mismatch problem: Week 20: RED 99081810546 RED 99081810547 Week 21: HSH 9908240194 HSH 9908240195			
Signatures (11)			
Witness / Reviewer	Horizon Acceptance Test Manager	Pathway	AIM
Date:	Date:	Date:	Date:
DSS Acceptance Manager		POCL Business Assurance	
Entered in Acceptance Database			Date:

Second Supplemental Agreement Annex to Schedule 2

Acceptance Incident Form		Acceptance Incident Number (1) 218	
Acceptance Test Name (2) Impl. A - User Training		Source (3) Rollout	Date Observed (4) 19/05/99
Witness/Reviewer who observed Incident (Owner) (5) Graham Katon			Authority (6)
Incident Type (7)	Criterion Reference (8) (if criterion not met)		Incident Severity (9)
☒ Criterion not met ☐ Substantive fault ☐ Other	534-01		☐ High ☒ Medium ☐ Low ☐ Pending ☐ None
Description of Incident (10) The Managers Training Course is not acceptable due to deficiencies in the accounting modules. In the live environment the training given did not equip the users to perform the completion of office cash accounts. This is a basis POCL function that is central to running and accounting for the POCL network.			
Signatures (11)			
Witness / Reviewer	Horizon Acceptance Test Manager	Pathway	AIM
Date:	Date:	Date:	Date:
DSS Acceptance Manager		POCL Business Assurance	
Entered in Acceptance Database			Date:

Second Supplemental Agreement Annex to Schedule 2

Acceptance Incident Form		Acceptance Incident Number (1) 298	
Acceptance Test Name (2) POCL Infrastructure		Source (3) BSM	Date Observed (4) 01/07/99
Witness/Reviewer who observed Incident (Owner) (5) Jeremy Folkes			Authority (6)
Incident Type (7)	Criterion Reference (8) (if criterion not met)		Incident Severity (9)
☐ Criterion not met ☐ Substantive fault ☐ Other	536-01		☐ High ☐ Medium ☒ Low ☐ Pending ☐ None
Description of Incident (10) Evidence from the Live Trial shows that the counter system is subject to "lockups" and "screen freezes", where the system halts in mid-processing giving the user no opportunity to take any corrective action. This is either exhibited by the system hanging or presenting a blank blue screen. The user is forced to ring the HSH and is advised to reboot the system. The immediate effect of this problem is in terms of the reliability of the Service Infrastructure's input devices. However, once the underlying reasons for the problem are identified, this could change the perception. At least 25 such occurrences have been identified on the LTSC log between the start of the Core Observation Period on 31st May and the 28th June. However, as such problems should be reported directly to the HSH, it is likely that this number represents only a small proportion of the total in which case, this problem would be widespread. Consequently, POCL's initial assessment is that this incident is likely to be more than low severity.			
Signatures (11)			
Witness / Reviewer	Horizon Acceptance Test Manager	Pathway	AIM
Date:	Date:	Date:	Date:
DSS Acceptance Manager		POCL Business Assurance	
Entered in Acceptance Database			Date:

Second Supplemental Agreement Annex to Schedule 2

Acceptance Incident Form		Acceptance Incident Number (1) 314	
Acceptance Test Name (2) POCL Infrastructure		Source (3) Review	Date Observed (4) 15/06/99
Witness/Reviewer who observed Incident (Owner) (5) Bob Booth			Authority (6)
Incident Type (7)	Criterion Reference (8) (if criterion not met)		Incident Severity (9)
☒ Criterion not met ☐ Substantive fault ☐ Other	469-01, 469-02, 470-01, 470-02, 869-05		☐ High ☒ Medium ☐ Low ☐ Pending ☐ None
Description of Incident (10) The above criteria refer to the requirement for Pathway to supply detailed technical documentation which will allow POCL to procure applications from a third party supplier. At the time the POCL Infrastructure Acceptance Specification was being agreed it was recognised that the technical documentation to support it did not exist. Therefore POCL agreed that Pathway could provide the documentation at a later date. Furthermore it was understood that Pathway were allowed to put forward their proposal as to how this criteria would be met in the future. The main document cited was the 'ICL Pathway External Applications Procurement Policy' which detailed an approach as to how they would work with a third party supplier. However this document still does not meet the criteria as they stand today. Furthermore the other cited references, 'Counter Hardware Design Specification', 'OPS Architecture Document' and 'TMS Architecture Document' do not meet the criteria as being clearly defined technical documentation. Providing third party documentation as with 'Riposte 32 API Specification' indicates that the documentation is not maintained by Pathway and therefore does not fully meet the criteria. In summary the documentation provided is not sufficiently detailed to allow POCL to procure applications from a third party supplier.			
Signatures (11)			
Witness / Reviewer	Horizon Acceptance Test Manager	Pathway	AIM
Date:	Date:	Date:	Date:
DSS Acceptance Manager		POCL Business Assurance	
Entered in Acceptance Database			Date:

Second Supplemental Agreement Annex to Schedule 2

Acceptance Incident Form		Acceptance Incident Number (1) 342	
Acceptance Test Name (2) TIP Interface		Source (3) BSM	Date Observed (4) 02/06/99
Witness/Reviewer who observed Incident (Owner) (5) Martin Box			Authority (6)
Incident Type (7)	Criterion Reference (8) (if criterion not met)		Incident Severity (9)
Criterion not met Substantive fault Other	831-01		High Medium Low Pending None
Description of Incident (10) New description: A number of individual operational incidents have been raised by TIP concerning (a) the delivery of transactions files and cash accounts to TIP after Day D, (b) Transaction files and / or Client summary files not being received at all on the expected dates and (c) files not being delivered by 03:00. The continued occurrence of such incidents suggests that there is a system management fault that will cause a breach of the SLA for Data file delivery, in particular that 100% of all transaction records are to be delivered by 03:00 on Day D. (Schedule G10 paragraph 3.1) A consistent failure to meet this would constitute a high severity fault and an occasional failure would constitute a medium severity fault. The gateway of accepted files has not been cleared down. This could cause a potential files overload and the gateway would not be able to handle the volumes. Currently, the analysis is if the gateway is unnecessarily cluttered, causing delays in the production of statistical results. POCL do not know if this is a procedural problem or whether there is a fault in the systems management of the gateway. A TIP incident number 784 was originally raised on 11 May 1999 and the original Acceptance Incident was raised with Pathway at the time but was withdrawn in order to amalgamate the TIP incidents into aggregate ones. This particular one stands on its own and is being re-raised. Severity: POCL - medium PWY - admit it is a problem but question why SLA's are not being used for this. The second part to the AI is old number AI 363. They were lumped together as the outcome of the Gateway not being cleared would result in non delivery of files. Rectification: Richard Brunskill to provide details of rectification plans.			
Signatures (11)			
Witness / Reviewer	Horizon Acceptance Test Manager	Pathway	AIM
Date:	Date:	Date:	Date:
DSS Acceptance Manager		POCL Business Assurance	
Entered in Acceptance Database			Date:

Second Supplemental Agreement Annex to Schedule 2

Acceptance Incident Form		Acceptance Incident Number (1) 369	
Acceptance Test Name (2) POCL Infrastructure		Source (3) BSM	Date Observed (4) 20/07/99
Witness/Reviewer who observed Incident (Owner) (5) David McLaughlin			Authority (6)
Incident Type (7)	Criterion Reference (8) (if criterion not met)		Incident Severity (9)
☒ Criterion not met ☐ Substantive fault ☐ Other	536-01		☐ High ☐ Medium ☐ Low ☐ Pending ☒ None
Description of Incident (10) The bar code scanner reliability is questionable in relation to OBCS transactions where there has been a high number of rejections of pension and allowance books.			
Signatures (11)			
Witness / Reviewer	Horizon Acceptance Test Manager	Pathway	AIM
Date:	Date:	Date:	Date:
DSS Acceptance Manager		POCL Business Assurance	
Entered in Acceptance Database			Date:

Second Supplemental Agreement Annex to Schedule 2

Acceptance Incident Form		Acceptance Incident Number (1) 372	
Acceptance Test Name (2) POCL Infrastructure		Source (3) BSM	Date Observed (4) 20/07/99
Witness/Reviewer who observed Incident (Owner) (5) Rod Stocker			Authority (6)
Incident Type (7)	Criterion Reference (8) (if criterion not met)		Incident Severity (9)
☒ Criterion not met ☐ Substantive fault ☐ Other	476-04, 476-05, 537-01		☐ High ☒ Medium ☐ Low ☐ Pending ☐ None
Description of Incident (10) The contractor shall carry out system management of all the Services in a consistent and coherent manner to ensure the following: b) changes to the Services can be made speedily and accurately. Upgrade of 299 offices was planned to be done on 10th/11th July such that all offices were able to offer an LT2 service at start of business on Monday 12 July. Success criteria were identified (see Pathway Report dated 16/7/99 version 2). Release contents for LT2 were identified in Pathway Report CS/REP/043 version 1.0 dated 9/7/99). Not all 299 offices were successfully upgraded to LT2 by 0900 hours Monday 12 July. by 1030 hours 288 had been upgraded leaving 11 offices still operating LT1. The following incidents are demonstrations of the failure to meet the criteria. A number of errors caused by corruptions to .dll files: - outlets unable to declare stamps, stock and cash (Pathway problem reference PC0027742) - receipts not equal to payment errors (FAD codes: 390329, 8523, 13523, 166328) Approximatley 35 outlets made calls to the HSH with the following problem - appearance of a No Entry sign on the desktop preventing continuation (Pathway problem reference PC0027743) An LT2 change was to the font size for the cash account. TP report that 8 offices (FAD 252329, 205329, 407329, 258523, 188504, 156523, 166328, 461329) produced cash accounts with the old font size.			
Signatures (11)			
Witness / Reviewer	Horizon Acceptance Test Manager	Pathway	AIM
Date:	Date:	Date:	Date:
DSS Acceptance Manager		POCL Business Assurance	
Entered in Acceptance Database			Date:

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Acceptance Incident Form		Acceptance Incident Number (1) 376	
Acceptance Test Name (2) TIP Interface		Source (3) BSM	Date Observed (4) 19/07/99
Witness/Reviewer who observed Incident (Owner) (5) Martin Box			Authority (6)
Incident Type (7)	Criterion Reference (8) (if criterion not met)		Incident Severity (9)
☒ Criterion not met ☐ Substantive fault ☐ Other	831-01		☐ High ☒ Medium ☐ Low ☐ Pending ☐ None
Description of Incident (10) New Description: AIS contravention/ Data integrity - derived cash account not equal to the electronic cash account. Incidents (TIP 821, 822, 846, 855, 856, 857, 858, 859, 864, 965, 866, 868, 869, 870, 873, 874) have been raised by TIP in respect of all transactions that constitute a cash account have not been received by TIP or when electronic cash accounts received where transactions that have been conducted and received by TIP are missing from the respective cash account lines. These issues have come to light when comparing a TIP derived cash account with the electronic cash account sent by Pathway. Not all instances of similar occurrences have been logged by TIP as the physical resource to check each occurrence of a difference within the derived versus the electronic is not available. It was expected that this facility would by now be comparing like with like. This is very significant. Missing transactions and missing cash account line entries cause reconciliation failures within POCL back end systems and error resolution is invoked. The cash account produced by the Organisational Unit in these instances must be in doubt and is not a fair reflection of the business undertaken at each Organisational Unit. A subpostmaster may be asked to bring to account an error, but the error was produced via system failure rather than human failure. Many hours of investigation at both the front end and back end have taken place to help resolve these problems. The benefits assigned to POCL back end system in respect of an automated cash account are being questioned. Severity: POCL - high - would effect POCL's ability to produce an accurate cash account. PWY - accept the problem exists. Would argue about the severity - would it genuinely effect the accounting integrity as it currently exists? Rectification: Steve Warwick to provide rectification of this issue. PWY understand the problem and are currently working on the fix. Steve Warwick to provide details.			
Signatures (11)			
Witness / Reviewer	Horizon Acceptance Test Manager	Pathway	AIM
Date:	Date:	Date:	Date:
DSS Acceptance Manager		POCL Business Assurance	
Entered in Acceptance Database			Date:

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Acceptance Incident Form		Acceptance Incident Number (1) 378	
Acceptance Test Name (2) TIP Interface		Source (3) BSM	Date Observed (4) 19/07/99
Witness/Reviewer who observed Incident (Owner) (5) Martin Box			Authority (6)
Incident Type (7)	Criterion Reference (8) (if criterion not met)		Incident Severity (9)
☒ Criterion not met ☐ Substantive fault ☐ Other	831-01		☐ High ☐ Medium ☐ Low ☐ Pending ☒ None
Description of Incident (10) New Description: Incidents (TIP 806, 867) have been raised in respect of a cash account sub file containing only stock holding records and not a cash account record as expected. This held up the processing of the cash account within POCL's back end systems. This was correctly rejected by TIP. Severity: POCL - medium - due to time taken to investigate each problem and knock on impact on POCL back end systems. PWY - accept the problem exists. Dispute medium rating. Rectification: Steve Warwick to provide rectification of this issue. A fix exists - Steve to provide details of dates for download to outlets so TIP can monitor the rectification.			
Signatures (11)			
Witness / Reviewer	Horizon Acceptance Test Manager	Pathway	AIM
Date:	Date:	Date:	Date:
DSS Acceptance Manager		POCL Business Assurance	
Entered in Acceptance Database			Date:

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Acceptance Incident Form		Acceptance Incident Number (1) 390	
Acceptance Test Name (2) APS		Source (3) Review	Date Observed (4) 09/07/99
Witness/Reviewer who observed Incident (Owner) (5) Bob Cragg			Authority (6)
Incident Type (7)	Criterion Reference (8) (if criterion not met)		Incident Severity (9)
☒ Criterion not met ☐ Substantive fault ☐ Other	549-02, PS-32		☐ High ☒ Medium ☐ Low ☐ Pending ☐ None
Description of Incident (10) Recovery facilities are inadequate for the recovery of transactions. They fail criterion 32, 549/2 This area of functionality is weak and requires the operator to declare the reversal as a lost transaction and then at a later point reverse the recovered transaction. This procedure is difficult to operate and does not provide full audit trail for reversed transactions. When declaring the transactions that have been missed the range is referred to as the "gap". It has come to light that the NR2 system only supports one gap. Due to the business need to continue trading by delaying the recovery, it is possible that additional failures will create further "gaps". Since the system does not support this there is a shortfall in process / procedures.			
Signatures (11)			
Witness / Reviewer	Horizon Acceptance Test Manager	Pathway	AIM
Date:	Date:	Date:	Date:
DSS Acceptance Manager		POCL Business Assurance	
Entered in Acceptance Database			Date:

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Acceptance Incident Form		Acceptance Incident Number (1) 391
Acceptance Test Name (2) Security	Source (3) BSM	Date Observed (4) 22/07/99
Witness/Reviewer who observed Incident (Owner) (5) Jeremy Folkes		Authority (6)
Incident Type (7)	Criterion Reference (8) (if criterion not met)	Incident Severity (9)
☒ Criterion not met ☐ Substantive fault ☐ Other	698-01, 698-02, 698-03, PS-22, PS-39, PS-40, PS-41	☐ High ☐ Medium ☒ Low ☐ Pending ☐ None
Description of Incident (10) The physical security controls in force at the two main Pathway data centres at Bootle and Wigan are deficient in a number of areas, when measured against best practice, relevant standards (BS7799, as required by 698.03 and PS41, DITSS as required by PS22) and Pathway's own Security Management Procedures (RS/PRO/028 1.0 10.5.99), which form part of Pathway's Security Policy (RS/POL/002 4.0 30.4.99), which is in turn the response to Requirement 698.02. The data centres are a critical element of the Pathway service provided to POCL, and should be protected to an adequate standard to control the risks and liabilities of both Pathway and POCL (as per 698.01 and PS39). Recent inspections of the Data Centres show that the quoted criteria are not met. Detailed comments have been passed to ICL Pathway on a number of occasions, including following the last site visit on the 22nd July. However, these include: Bootle 1. The Data Centre is located within 2m of a car park used by staff from a number of other organisations over which ICL Pathway have no control, and to which visitors cars have largely unrestricted access. The DITSS recommends a 25m vehicle exclusion zone. There are no physical restrictions on pedestrian access up to within 2m of the Data Centre, with the outer site fence claimed purely to be a delimiter and not intended as a physical control. CCTV coverage of the car park close to the Data Centre does not appear good, and POCL have been denied permission to view the CCTV coverage. Pathway's previous stated mitigations to the proximity of the car park, based on CCTV tracking, control of visitors cars, etc do not appear to be effective. 2. The fence protecting the Data Centre itself is in such a poor state as to offer only a low level of protection against intrusion - at various points tensioning wires are missing, the fence is not secured to the ground, locks are missing or in a poor state, the fence is just fixed to the uprights purely by twisted wire, etc. Although the inner moat is covered by an IR alarm and CCTV, this is little mitigation against a quick denial of service attack; as above, POCL have been denied permission to view the CCTV coverage. Wigan 1. The overall site is largely "public", with few controls on pedestrian access, indeed the area near to back gate was in use by youths, unnoticed by the site security presence, during a recent visit. Although some legacy CCTV is in place, this is monitored by a single member of staff who also acts as receptionist, undertakes tours of inspection etc, which given the lack of any movement detection or site alarm is unlikely to provide reliable detection of intruders. One CCTV camera has been "missing" since the time of our initial visits, and we understand that ICL Pathway have declined to pay for a CCTV upgrade. The outer site fence is again a delimiter rather than a security barrier. As a result, there is in effect public access right up to most of the building, or to within 5m of the Data Centre (although the inner protection to the Data Centre has now been brought up to a more acceptable standard)		

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the inner protection to the Data Centre has now been brought up to a more acceptable standard).

Note that Pathway's own Security Management Procedures [s5.1.1] refers to "defined perimeters.... with consistent level of security" and states that the security measures shall ensure that:

- a) the security of the perimeter is consistent with the value of the assets (including services) under protection
- b) the security perimeter is clearly defined.

Relevant referenced documents for Physical Security include:

- Pathway Security Management Procedures - s5 (eg 5.1.1 "security of the perimeter is consistent with the value of the assets (including services")
- BS7799 s5
- DITSS s13 (specific advice on vehicle parking distances etc).

Note also the new Data Protection Act imposes a duty on Information Security.

Signatures (11)			
Witness / Reviewer	Horizon Acceptance Test Manager	Pathway	AIM
Date:	Date:	Date:	Date:
DSS Acceptance Manager		POCL Business Assurance	
Entered in Acceptance Database			Date:

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Acceptance Incident Form		Acceptance Incident Number (1) 408	
Acceptance Test Name (2) Service Levels		Source (3) BSM	Date Observed (4) 23/07/99
Witness/Reviewer who observed Incident (Owner) (5) David McLaughlin			Authority (6)
Incident Type (7)	Criterion Reference (8) (if criterion not met)		Incident Severity (9)
Criterion not met Substantive fault Other			High Medium Low Pending None
Description of Incident (10) Failure of the Horizon System helpdesk to support the network. there were six service level failures in the last reporting period and are listed below. Calls answered within 40s Calls abandoned through ring off Level 1 calls resolved within 5 mins Level 1 calls resolved within 10 mins Level 2 calls resolved within 30 mins Level 2 calls resolved within 45 mins All of these failures will have an impact on the network and customers.			
Signatures (11)			
Witness / Reviewer	Horizon Acceptance Test Manager	Pathway	AIM
Date:	Date:	Date:	Date:
DSS Acceptance Manager		POCL Business Assurance	
Entered in Acceptance Database			Date:

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Acceptance Incident Form		Acceptance Incident Number (1) 412
Acceptance Test Name (2) Help Desk	Source (3) BSM	Date Observed (4) 01/09/99
Witness/Reviewer who observed Incident (Owner) (5) Jerome Brice		Authority (6)
Incident Type (7)	Criterion Reference (8) (if criterion not met)	Incident Severity (9)
Criterion not met Substantive fault Other		High Medium Low Pending None
Description of Incident (10) Pathway produce a Service Review Book reporting performance against service levels on a monthly basis. In the July 1999 Service Review Book, Pathway reported that during the previous month they had passed all the service levels relating to transaction services for AP, EPOSS and OBCS (these all relate to transaction times). On the 22nd July 1999 Adele Kilcoyne requested an ad-hoc report from Pathway to be provided by 3 August. Pathway acknowledged receipt of the request on 29 July. The purpose of this request was: · to confirm the overall level of service for the purposes of live trial evaluation (the review book does not report actual levels of service if the SLA is met) · to verify that Pathway are calculating these SLAs in accordance with the contract schedules. Pathway are contracted to provide this information within three working days of the request (Schedule CA15v10r Requirement 914). When this information had not been received on the 13 August Adele left a message on Richard Brunskill's mobile phone, no reply was received. As information had still not been received on 27 August, Adele made a further request. In response to this request Adele received a phone call from Nicole Meredith of Pathway on the 27 August who reported that they were now looking into this and would produce the information as soon as possible, and that the person who is dealing would be back the following week. The reason given for the delay was that the information was not available until now. As of today, 1 September, this information has still not been supplied. The reason given for the delay is a major cause of concern for the following reasons: · if the data was not available it would not have been possible to report that they had passed the service levels - this calls into question the veracity of their service reporting. · the computation of these service levels requires transaction counting (for the purposes of weighting fall-back transactions and the calculation of remedies). Without this information we do not have assurance on how transactions are being counted in the live environment for Service Levels. We know from a meeting between Liz Blackburn and Graham Wingrove and Dave Fletcher of Pathway (9 July 1999) that the system cannot currently count as defined for steady state charging purposes as defined in Schedule A12. · Pathway have not provided assurance that data will be available to timescales in the future. Adele Kilcoyne raised Pathway's refusal to provide three such previous requests at the 21 July Service Review Forum. She asked for clarification of the agreement to provide information in this manner and also asked why no reason had been given for not be able to supply this data. Richard Brunskill stated that from this point forward all ad hoc requests would be sent via him and that a documented procedures was to be agreed (these comments are as minuted). Clearly Pathway's statement on 27 August suggests that they are insufficiently resourced and are not capable of meeting the required		

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statement on 27 August suggests that they are insufficiently resourced and are not capable of meeting the required timescales for delivery.

Signatures (11)			
Witness / Reviewer	Horizon Acceptance Test Manager	Pathway	AIM
Date:	Date:	Date:	Date:
DSS Acceptance Manager		POCL Business Assurance	
Entered in Acceptance Database			Date:

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Acceptance Incident Analysis Form		<i>To be completed by the ICL Pathway Acceptance Manager: to be given to the Horizon Acceptance Incident Manager</i>	
Acceptance Incident Number (1) 211		Analysis Sequence Number (2)	
Acceptance Test Name (3) EPOSS			
Analysed Incident Severity (4)	High / Medium / Low (4) Medium	Authority (5)	
Analysis of Acceptance Incident (6) Four calls have been formally added to this incident, and are addressed below. In addition we have been informed of a further 7 incidents in week 22, detailed analysis of which has been sent separately to Calum Craig and to TIP. In summary 6 of these resulted from a fault introduced by an attempted fix in another area, which resulted in the system not preventing the user from swiping a book while at an inappropriate menu. This bad fix has already been reversed out and a good fix made. The 7th incident was caused by the reversal of Parcel Traffic and Non-Accounting Data transactions within a single Existing Reversals session. This should not be done, and EPOSS needs amendment to prevent transactions with different original transaction modes being reversed in the same session. This is being fixed under PinICL 29148. A fix is in test and is expected on the counters no later than 22nd September. We have also been informed of 5 incidents in week 23. These were caused by transactions in incorrect modes, as for the 6 above. RED 99081810546, HSH 9908160116, PinICL 28627 was caused by a user navigating to the reversals screen while having a remittance on the stack and then settling it, causing the transaction to be settled with the incorrect mode. Solution is to disable the reversals button. Fix in test and is expected on the counters no later than 17th September. RED 99081810547, HSH 9908160118, PinICL 28628/28547 was caused by an error which allowed the stock unit roll process to be executed twice. This is in fact another aspect of TIP Incident 910, part of AI376. The multiple instances of stock unit roll not only caused the inability to harvest cash account records but also put the counter into the wrong CAP and added the bought forward value for the start of CAP21 into the line 1085 value in the CAP 20 cash account. The fix was delivered to outlets starting on 14th September. HSH 9908240194/5 are similar: During APS recovery a situation occurred in which an APS transaction was recorded against the Default stock unit, causing the cash account to be out of balance. Fix will shortly be passed to OTT, and is expected in live by 24th September.			
Number of continuation pages			
Clearance Action (7)			
Pathway to deliver fixes and monitoring to continue for four weeks after last fix.			
Number of continuation pages			
Acceptance Incident Status (Open/ Analysed Retest/Recommended for KPR (8))		Agreed Resolution Plan.	
I propose the Clearance Action and Incident Status described above	P. John Pope	ICL Pathway Test Manager	20-Sep-99

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I accept / reject the Clearance Action and Incident Status described above		Horizon Acceptance Test Manager	Date:
Horizon Acceptance Incident Manager			Date:
DSS Acceptance Manager		POCL Business Assurance	
	Date:		Date:

ICL Pathway

Resolution Plan
Acceptance Incident 218

Ref: CR/ACD/218
Version: 0.5
Date: 23/9/99

Document Title: Resolution Plan for Acceptance Incident 218

Document Type: Resolution Plan

Abstract: This document contains ICL Pathway's plan to Close
Acceptance Incident 218

Status: Issued

Distribution: Expert:
Peter Copping

ICL Pathway:

Library

POCL:
Steve Grayston
John Meagher
Min Burdett
Jeff Austin

Author: W M Foley

Comments to: Pathway list

Comments by:

ICL Pathway

Resolution Plan
Acceptance Incident 218Ref: CR/ACD/218
Version: 0.5
Date: 23/9/99

0 Document control**0.1 Document history**

Version	Date	Reason
0.1	20/8/99	Initial draft for comments
0.2	16/9/99	Agreed Resolution Plan
0.3	22/9/99	Amended following POCL feedback
0.4	22/9/99	To include critical success factors
0.5	23/9/99	Further updates arising from drafting of Schedule 2 Part A of the second supplementary agreement

0.2 Approval authorities

Name	Position	Signature	Date
J H Bennett	Managing Director		
J C C Dicks	Customer Requirements Director		
W M Foley	Business Development Director		

0.3 Associated documents

Reference	Vers	Title	Source
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0.4 Abbreviations

ICL Pathway

Resolution Plan
Acceptance Incident 218

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0.5 Table of content

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2	SUMMARY	4
3	DETAILED ACTIVITIES.....	4

1 Purpose

This document sets out ICL Pathway's proposals that Acceptance Incident 218, currently a medium severity incident, has an agreed resolution plan and that its achievement will allow Acceptance Incident 218 to be Closed.

2 Summary

The Acceptance Incident was raised stating that "the majority of offices were experiencing considerable ongoing difficulty in performing the completion of office cash accounts.

Since then, there have been a number of developments in different areas to support the closure plan for AI218. These areas are detailed below and all activities are included in the overall resolution plan and activities are on schedule. A set of success criteria have been drawn up and were passed to ICL Pathway on 26 August 1999.

The closure report reflects the application of the appropriate set of success criteria and cross refers to the relevant measurement, analysis and 'agreement to close' activities to be included in version 0.3 of the Rectification Plan.

3 Detailed activities

These have been in the areas described below. Where applicable the dates associated with these activities are contained within the Timetable, Part B of Schedule 2 of the second Supplementary Agreement ("the timetable").

Application software: changes have been made, principally in the area of stock unit balancing and cash account to both software and surrounding processes to make the task of office balancing easier to understand and complete. These changes were implemented for LT2 and have proved successful in live use.

Training: changes have been made to the managers' training event to spend more time on the areas of error handling, printer use and principally stock unit balancing and cash account. Again, these changes have proven successful in live events.

Help Desk: The Horizon Systems Helpdesk (HSH) has now been strengthened by the addition of a cash account domain on Wednesdays and Thursdays. This is to ensure a more advanced level of support for offices that are encountering cash account problems.

Further to the activities above, a workshop took place on 13th August which identified seven specific areas for potential improvement in association with AI218. Commercial consequences of the actions below are agreed in an exchange of letters between Bruce McNiven of POCL and Liam Foley of ICL Pathway(ref B.McNiven letter of 3rd Sept. and Liam Foley's letter of 8th Sept.).

These areas are as follows:

- **Pre-Entry Event**

ICL Pathway has offered to develop and run 370 half day events for a maximum of 4,400 office managers. This is a new event and the dates for the development of this event are covered in detail within the timetable. Specification of the event is defined in doc. IM/PRO/172, version 0.2 - Specification of pre-entry event. This specification has been agreed with POCL through joint working groups.

- **Post Installation Care**

References were made in the success criteria for AI218 to the importance of an agreed resolution plan for AI408. It has been jointly agreed that the Resolution Plan for AI408 is sufficient to cover any residual concerns about post installation care and consequent references to training.

- **Post Installation Competency Strategy**

The joint workshop on 13 August accepted that not all users within the large population will 'absorb' Horizon. This may eventually call for closure of the outlet, replacement of the sub-postmaster or training of additional staff. It has been agreed between POCL and ICL Pathway that other steps taken within this resolution plan should minimise the risk of this and that any residual fallout will be handled by POCL. POCL have agreed to review and strengthen the relevant process. This is reflected in the timetable.

- **Monitoring Of Training Delivery**

ICL Pathway has produced a document IM/PRD/066, version 0.2 - Monitoring of Trainer Quality to detail the processes and procedures that are adopted by Knowledgepool to ensure a high quality of training delivery. This document has been reviewed by POCL and comments made which have been reflected in the latest issue of the document.

- **User Competency**

POCL asserted that the Performance Standard Assessment (PSA) was proving too subjective with potentially too much trainer assistance thus allowing trainees to pass the PSA who would subsequently prove to be unable to handle Horizon in the live environment. ICL Pathway and POCL have worked closely together to review the PSA and to arrive at an agreed test to administer on the training courses. The actions to achieve this are reflected in the timetable.

- **Post Training Consolidation**

It is recognised by POCL and ICL Pathway that insufficient use is being made of training mode in the live environment. The parties have worked together to formulate ideas for promotion of training mode in the live offices. Work on this subject is ongoing and the activities are reflected in the timetable.

- **Agreed Training Course Changes**

The changes raised by Trevor Rollason of POCL as a result of dry runs of the training courses have been implemented and all courses are now signed off.

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All of the above areas of activity are reflected in the timetable and all activities scheduled to be completed have been. All other activities are on schedule.

ACCEPTANCE INCIDENT - 218**CRITICAL SUCCESS FACTORS**

The Following table defines the critical success factors (CSFs) which should be applied to each of the activities to enable the resolution of Acceptance Incident 218. In essence the CSFs are consistent with those defined for the evaluation of the LT2 Horizon system release.

	Measure	Target
	Reduction in demand on support - Measured through a reduction in the number of calls (at the peak time on Wednesday evening and Thursday morning) for advice and guidance to support stock unit balancing, office balancing and production of the cash account received at the HSH and/or at the NBSC. Two time periods defined: peak: Wed 12.00 noon - Thurs 12.00 noon off-peak: the rest of the week ICL Pathway to provide details of calls received at HSH from additional offices, breaking out calls by categories, date, FAD code and associated pinICL number	On average NBSC should not receive more than 1.2 calls per week from outlets when performing their first two balances.
	Reduction in the length of calls from additional offices	Overall the aim is to achieve a call time of 5 minutes for calls in peak time (e.g. Wednesday evening) and 2.5 minutes for off peak calls to NBSC and HSH.
	The number of offices unable to complete the cash account balance process and produce a cash account balance. As with current practice, cash account balances with explicit reasons for a discrepancy are still considered to be	Zero

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	valid.	
	Time taken to produce a stock unit balance, the office balance and finally produce a cash account. It is assumed that the time taken for balancing excludes any instances where business related discrepancies occur, e.g lost vouchers etc.	In a typical sub-post office the overall process for producing stock unit balances, an office balance and the cash account should be completed within 2.5 hours. In an ECCO office the process should be completed within 4.5hours.
	User generated error reported by TP, in both CLASS and PIVOT.	Pre Horizon baseline level for same outlets.
	Level of success of Users against the Performance Standard Assessment (PSA).	At least 95% success rate.
	All support material must mirror the system e.g. training materials, guides, operating manuals and Training Mode.	There should be no inconsistencies (as reported to the NBSC). [Mitigation - Where inconsistencies are identified there should be an agreed resolution plan.]

**ICL
Pathway**

**Acceptance Incident 298 – Resolution
Plan**

Ref: CR/ACD/298
Version: 0.8
Date: 23/9/99

Document Title: Acceptance Incident 298 – Resolution Plan

Document Type: Acceptance Resolution Plan

Abstract: This document contains ICL Pathway's updated resolution plan for Acceptance Incident 298.

Status: Draft

Distribution: Expert:
Peter Copping

ICL Pathway:
Terry Austin
David Hollingsworth

Library

POCL:
John Meagher
Min Burdett
Jeff Austin

Author: J C C Dicks & D.C.Hollingsworth

Comments to: Pathway list

Comments by:

0 Document control

0.1 Document history

Version	Date	Reason
0.1	20/8/99	Initial draft for comments
0.2	24/8/99	Version for the Expert and workshop 26/8
0.3	2/9/99	Redrafted as a resolution plan
0.4	9/9/99	Material added on longer term incidence rates and defect prevention for future releases; distributed as a draft at Acceptance Workshop 9/9/99
0.5	10/9/99	Statistics updated to CAP 24; amendments to show statistics by counter volumes as a result of Acceptance Workshop 9/9/99
0.6	16/9/99	Summary & outline forward projections added to Section 5.2.4; additional material incorporated into Section 5.5, following review with POCL
0.7	22/9/99	Section 5.4.4 updated to reflect agreement on monitoring process during Oct/Nov. <i>[DN: Partial results for CAP26 have been included in this draft and should be disregarded.]</i>
0.8	23/9/99	Further updates arising from drafting of Schedule 2 Part A of the second supplementary agreement

0.2 Approval authorities

Name	Position	Signature	Date
J H Bennett	Managing Director		
J C C Dicks	Customer Requirements Director		
T P Austin	Development Director		

0.3 Associated documents

Reference	Vers	Title	Source
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0.4 Abbreviations

**ICL
Pathway**

**Acceptance Incident 298 – Resolution
Plan**

Ref: CR/ACD/298
Version: 0.8
Date: 23/9/99

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1 Purpose

This paper seeks agreed ways forward to resolve the system instability issues.

2 Summary

Pathway presents for review the relevant statistics for the period since 29 July, with particular reference to System Load Events; the progress to date at a detailed level; and the approach to future measurement, which it is proposed will involve POCL.

3 Criteria

The Criterion cited is 536/1.

“peripheral and input devices supplied as part of the elements of the Service Infrastructure on which OPS is provided shall be reliable, robust and easy to use”.

4 POCL position

Based upon the minutes of the Acceptance Board Meeting of 18 August 1999, POCL contended that:

“the proposed rectification plan does not provide an understanding of how the problems will be resolved by the proposed fixes. It is also unclear when fixes will be implemented”.

“POCL would need to see the outturn of [the fixes] as this was the only way to confirm the impact of the changes”.

“evidence from ringarounds suggested the problem could be 50% higher than reported at the help desk and that there was no clear evidence from Pathway to confirm or deny this”.

At the Acceptance Workshop on 6th September POCL introduced a proposed metric of 1 system “lock-up” or “crash” (requiring reboot) per counter PC per annum. This is based upon the achievement of a 95% reduction in stability incidents reported against week 19 and is said to be broadly in line with system stability statistics from ECCO and ALPS.

5 Pathway position

5.1 Pathway work programme

5.1.1 Short- Medium Term Activities

The ICL Pathway programme of work to stabilise the current level of system comprises root cause analysis and resolution of system incidents:

- detailed examination of Horizon System Help Desk call records
- direct telephone contact with post offices to more fully understand the detailed nature of the problem as seen by the users
- reconstruction and analysis of problems within Pathway test systems
- testing and automated distribution of fixes as described in the Acceptance Incident Analysis of 17 August

The details of this work programme are provided in Section 5.3, which gives an analysis of the various system stability faults by category, along with details of fixes applied and associated incidents levels pre- and post-fix.

5.1.2 Medium-Long Term Activities

In parallel with this short term activity, a thorough review of the detected faults is underway to ascertain their nature and to identify what changes may be appropriate to the ongoing Pathway development and testing approach. Section 5.5 of this document provides details of the analysis already undertaken in this respect, the initial conclusions and suggestions for improved defect removal for future releases.

5.2 Statistics for the period since 29 July

5.2.1 High level analysis

The principal measure of systems instability has been the calls made to the Horizon Systems Help Desk by outlet staff reporting a problem with the functioning of the system at the outlet.

For a proportion of such calls the incident is resolved by a system unit reboot (a Help Desk “authorised reboot”). In other cases the Help Desk staff may recommend an avoidance action that provides a simple workaround to the problem without rebooting the system unit. In certain cases the Help Desk may also receive a call from an outlet advising that outlet staff have locally initiated a reboot; such calls are recorded by the Help Desk and normally provide some additional information relating to the circumstances of the incident.

5.2.2 System Load Events & “Unauthorised” Reboots

POCL expressed concern over the potential occurrence at outlets of locally initiated system unit reboots that had not been reported to the Help Desk. ICL Pathway subsequently mounted an exercise to extract this information by extracting and analysing the Windows NT System Event Logs at each outlet. This provides precise statistics for all System Load Events (SLEs) whatever their cause. By correlating these load events with reboot instructions issued at the Help Desk it has been possible to produce metrics for both authorised (via HSH) reboots and unauthorised (via local office action) reboots. This analysis is continuing on a day by day basis.

Such unauthorised reboots may occur for a variety of reasons, including:

1. in response to a perceived systems malfunction of some kind, where the clerk does not contact the Help Desk and initiates such action of his own volition
2. in response to an environmental incident such as a power cut or through disconnection of the power supply
3. through failure to leave the machines switched on during periods of unattended operation (e.g. overnight or weekends) with corresponding reboots when operation restarts, e.g. on a Monday morning

Since the circumstances relating to such incidents are unknown, the incidents cannot be directly attributed as systems stability incidents and must be excluded from the detailed analysis in the following section. Both POCL and ICL Pathway are working to reduce the incidence of such reboots to the core unavoidable events (category 2) through improved user education and discipline.

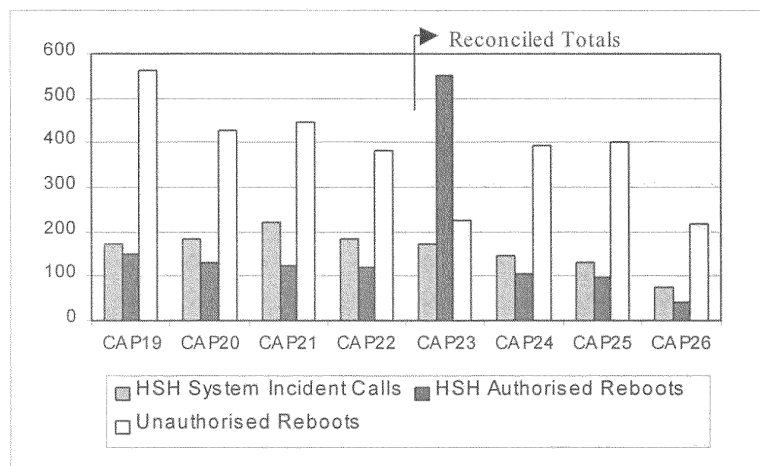
5.2.3 System Incident Metrics

The high level analysis of system instability incidents thus includes three categories:

- Authorised reboots (correlated with Help Desk instructions)
- Unauthorised reboots
- Total Help Desk system incidents (including authorised reboots and other calls closed via avoidance actions)

Summary totals for the Cash Account Periods 19-26 are shown in the following charts

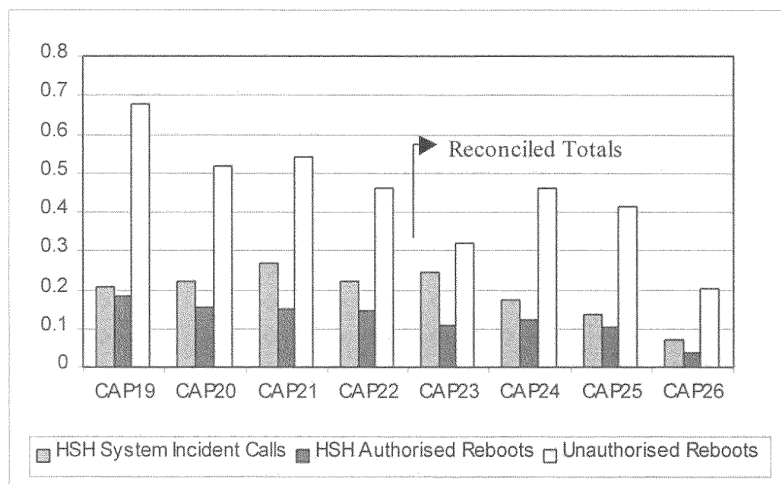
(Note that the total for CAP 26 is provisional and the final figure may be subject to minor variation once all incidents from the 22nd September have been fully analysed.)



Note that (i) CAP23 included a Bank Holiday and a planned (authorised) reboot of all counters, by request to outlets; (ii) “unauthorised” reboots have increased in CAP24 and CAP 25 due to the installation of new outlets showing up in the total. (This trend is expected to continue.)

A more detailed scheme of incident analysis was instigated by Pathway from CAP23, to facilitate focused incident analysis and resolution. This places emphasis on that class of incidents which requires a system reboot. From week 24 an individual reconciliation of incidents totals between Pathway and POCL has been occurring with inclusion of a category for “disputed” items which involve an HSH call but not a reboot. For week 23 a retrospective adjustment has been added to the weekly total to support comparison between the two weeks. However, direct comparison with earlier weeks is not valid since the totals were not reconciled in this way.

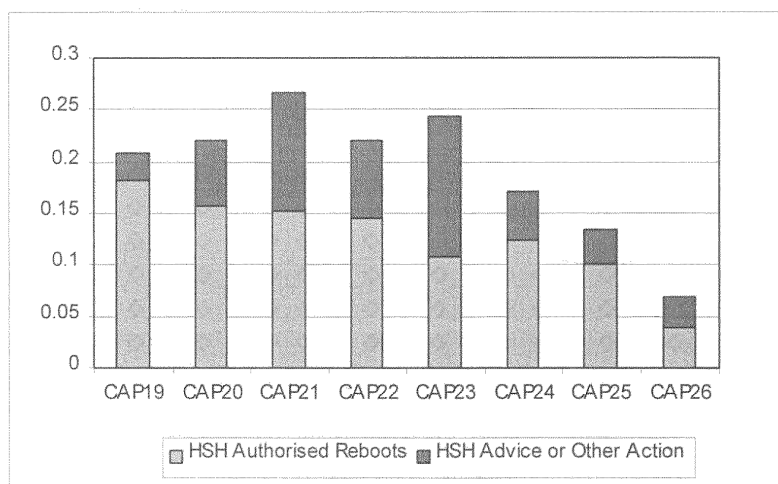
The following chart shows the same data, with the planned reboot data removed (31/8/99), CAP 23 adjusted for the bank holiday in terms of incident rate per day, and the numbers for each week adjusted for the volume of counters installed. This shows the incidence of the same measurements expressed as a rate of occurrence per counter per week.



From the above analysis it can be seen that there is a reducing trend, particularly towards the end of the current period. The chart following shows the incidence of HSH calls per counter per week relating to systems incidents. The level of HSH (authorised) reboots is now at the level of approximately 0.5 per month per counter, below the first Pathway target (1.0) and the proposed threshold for classification as medium severity.

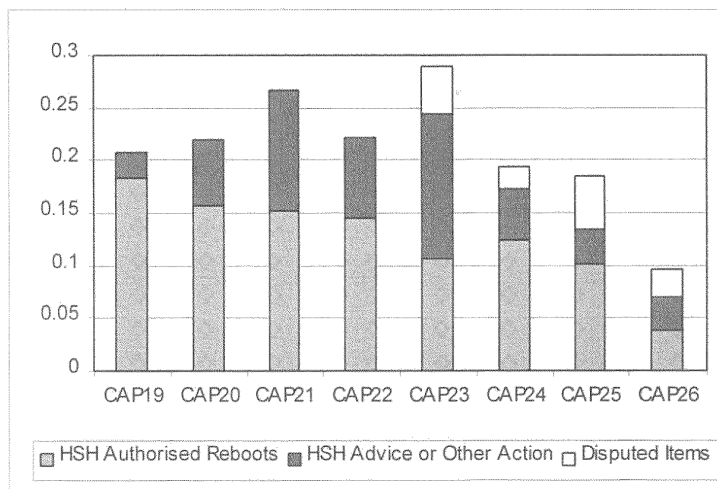
The increase in incidents in CAP 23 is attributable to the introduction of the “System Busy” indicator and a one-off fault introduced into OBCS which both resulted in a significant number of new calls.

The following chart shows the HSH system incident calls separated into those requiring a system reboot and those dealt with by advice or other action.



A number of analysed HSH calls have not been resolved between ICL Pathway and POCL and are listed as disputed incidents. Such calls include simple workarounds to known (predictable and stable) operational problems, and a few other incident types, such as handling of printer jams and related printing conditions, which have not been accepted by ICL Pathway as indicative of a system stability problem. The following chart includes the above totals with disputed items shown as a separate category.

The principal incident in the disputed category is that of button locking (see *section 5.3.1*). *Section 5.4.4* makes it clear that for the period of monitoring, those button locking incidents that result in reboots or authorised workarounds will be counted. HSH calls other than those, which result in reboots or workarounds due to button locking, will not be monitored after CAP26.



5.2.4 Summary Position (CAP 25) & Future Projections

The incident types have been grouped into 13 categories and a detailed analysis is provided in section 5.3.

Problems Eliminated

The following incident types have been eliminated with no noted recurrences:

- Back office printer hanging on final cash account production (Section 5.3.4)
- The “one-off” OBCS problem (Section 5.3.12)
- Querying logged-on users problem (Section 5.3.8)
- Improvements in performance of the suspense account print (Section 5.3.2)

Problems Significantly Improved

The following incident types have seen significant improvement but have not been totally eliminated

- Button locking problems (Section 5.3.1) have been reduced to a small number of incidents, which can be avoided by workaround.
- Virtual memory and other error messages (Section 5.2.3)
- APS application problems - associated with printing and recovery (Section 5.3.11)

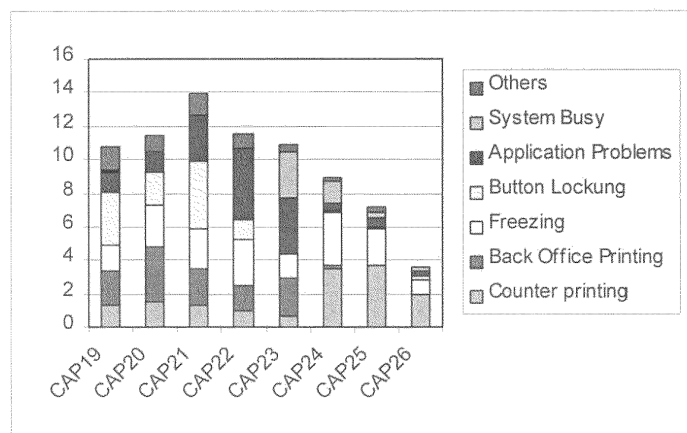
Key Outstanding Problems

The following problem areas have seen only minor improvements and are the principal subjects of current analysis and fixes:

- Freezes during / after log-on and occasionally in other circumstances (Sections 5.3.5, 5.3.6 & 5.3.9)

- Counter printing issues (Sections 5.3.10 & 5.3.13)
- System Busy incidents (Section 5.3.7), although these are being re-categorised into the underlying problems

The history of the main types of incident is shown in the chart below, shown on the same scale as individual incident rates in section 5.3 (incidents occurring per counter per annum). This indicates the history of when significant systems problems have been experienced and eliminated.



This chart shows that the three significant incident categories as of CAPS 24-26 are counter printing, system freeze conditions and system busy. (It is also apparent that various AP problems in CAPs 19-23 were related to counter printer incidents, giving rise to an understatement of such printer conditions during these weeks.)

Future Incident Rates

These are based upon an assessment of the current known problem areas with fixes either in preparation or distribution, plus an expectation of smaller “second phase” improvements in the longer term to tackle residual incident types in significant categories.

The main short term fixes assessed include:

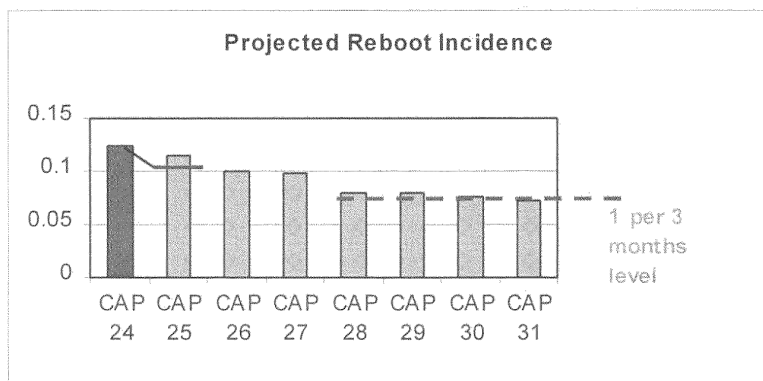
1. The “Double F1” fix to relieve system freezes during log-on (week 25) plus diagnostic to provide more details of other freeze conditions (should reduce 40-50% of freeze conditions)
2. The fix to the Riposte Peripheral Server and related incidents involving 2nd page GIRO reports
3. Elimination of print contention by locking “Previous” during print format operations

(2 & 3 should eliminate up to 50% of counter printing incidents and are expected in CAP 26/27)

4. Alleviation of button locking problems when an EPOSS receipt is printed after an APS receipt (should avoid workarounds for a substantial subset of incidents) – issued in CAP 25
5. A revised version of System Busy based upon Riposte Desktop processor time rather than total system time (this should eliminate some instances where system busy is active because of background tasks rather than mainstream counter operations) – issued in CAP 25

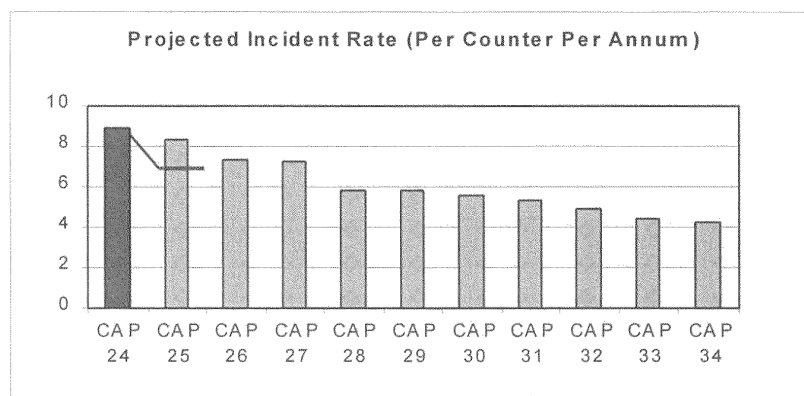
The future projections are separated into near term values for CAP 26 and 27, based upon extrapolation of the HSH authorised reboot levels, and a set of medium term values based upon system incident rates. All projections were made during CAP 25 based upon the actual field data obtained up to and including CAP 24. The (provisional) actual figures for CAP 25 are also shown.

Near Term Projections



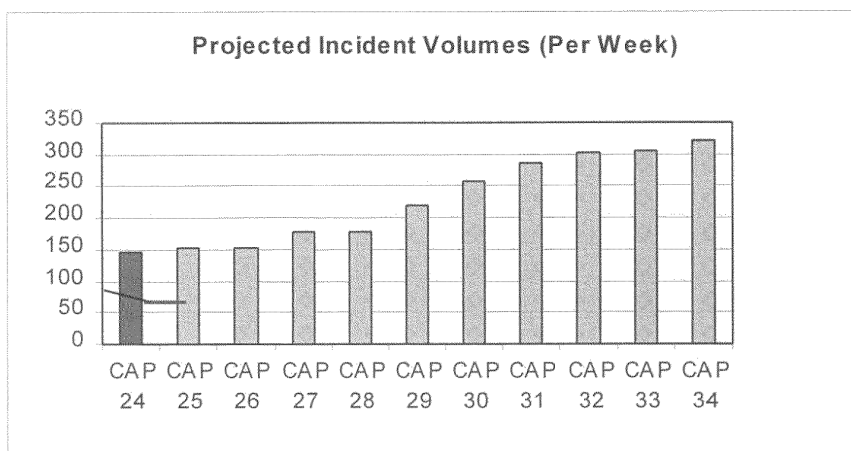
Medium Term Projections

A similar chart for systems incident rate and an extrapolation for actual HSH call volumes are shown below.



The single most significant drop is associated with counter printing fixes expected for issue during CAP 26/7 and showing in the projection for CAP 28.

Taking account of the projected increase in counter population this leads to the following outline profile of incidents at the HSH.



The projected incident rate remains essentially stable over the near term with reductions matched by increased counter volume; during October and November there is a steady increase as the rate of counter build up exceeds incident reduction rate.

5.3 Detailed Incident Analysis, Categorisation & Resolution

To facilitate analysis and resolution, system incidents have been filtered into individual categories, each typically associated with one particular problem area of system operation. To provide confidence in the improving stability of the system, incidents are recorded as daily totals within each category, to allow correlation against the dates at which particular fixes were issued to resolve specific problems. This analysis includes all system stability incidents whether resolved by a system reboot or by procedural workaround.

As detailed investigation of incidents proceeds, certain faults may be grouped together into a new category. Initially 12 categories were identified. At week CAP24 a number of system busy incidents (category 7) have been categorised differently as the detail of the fault has been understood. Certain incidents previously recorded under “system busy” have been identified as hang during/after log-on (category 5) and a specific problem associated with the counter printer during busy conditions has been created (category 13).

From version 0.5 of this document, the incident count has been based against the number of counters installed and quoted as average incidents per counter per annum.

5.3.1 Button No Entry Signs

From time to time under normal system operation Horizon buttons are “locked” to prevent user entry to the particular function at that point in the menu navigation. Such

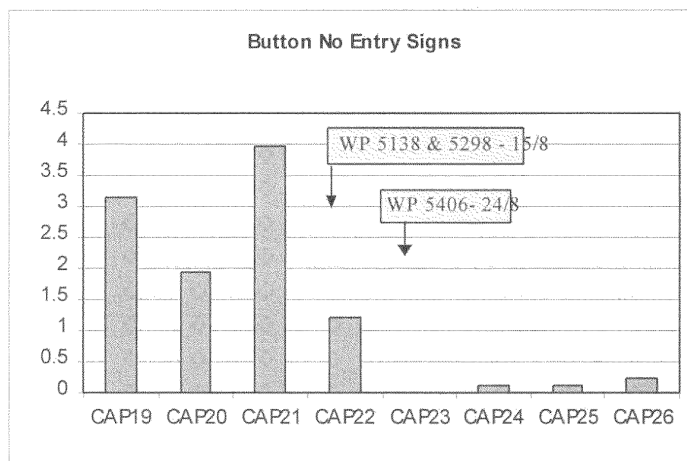
locked buttons are represented to the user by a “no entry” sign across the button. Examples of legitimate usage of locked functions include:

- prevention of more than one user selecting cash account functions or producing certain types of daily printed report
- prevention of logout or entry to training mode when a suspended session exists

At LT2 substantial changes were made to button locking particularly to prevent access to conflicting functions during cash account and printing functions. The logic associated with button locking is complex and typically requires combinatorial analysis of multiple conditions.

Fixes were issued to correct the majority of incidents recorded within this category, by correcting the complex logic associated with button locking. A minor residual usage problem has been identified, which results in button locking if the printer goes offline immediately following a SU balance report. This problem has a simple workaround and does not require a reboot.

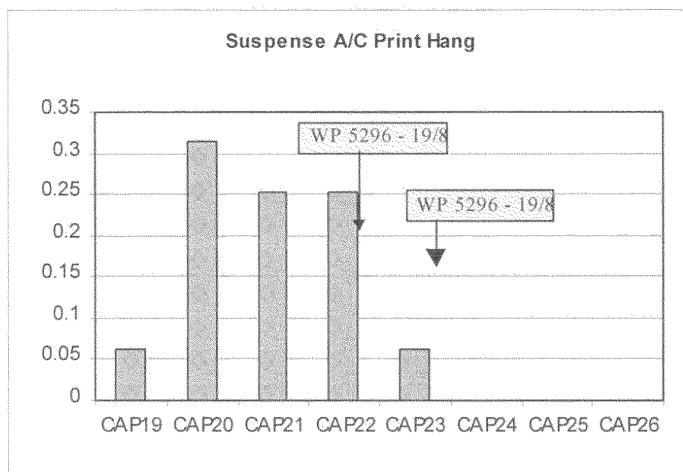
The history of button locking incidents is shown below.



Note that reported incidents tend to be higher on cash account days because of a higher incidence of legitimate button locking associated with cash account and office printing functions. A number of disputed items (incidents which do not require reboot) are excluded from week 23/24. With these included the average incident rate is running at approximately 1 – 1.5 per counter p.a.

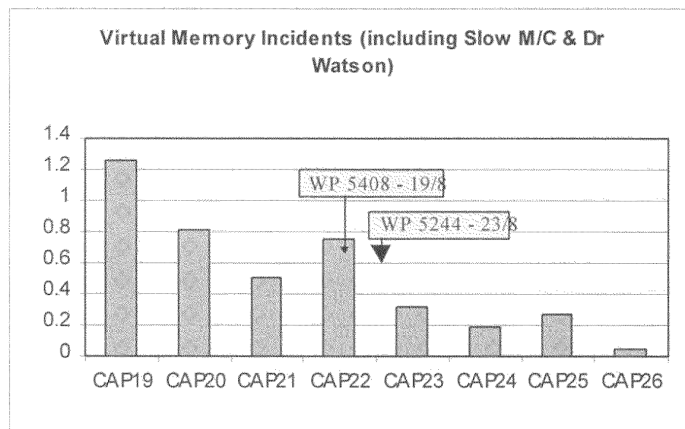
5.3.2 Suspense Account Print

The suspense account was taking an excessive time to print under certain circumstances, giving the appearance of a system hang. A fix to improve the performance was issued in two parts. The history of such incidents is provided below.



5.3.3 Virtual Memory Problems

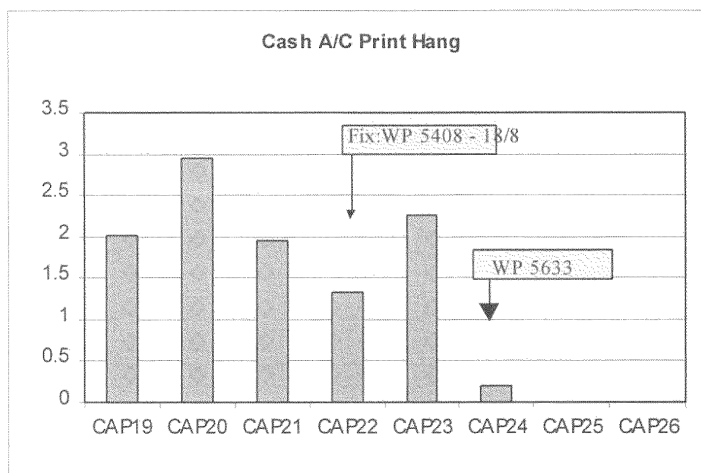
Two problems have been observed which result in progressive memory leakage. (In these circumstances application routines are obtaining virtual memory from Windows but not freeing it correctly after use, leading to eventual virtual memory exhaustion.) The reported symptoms include very slow system operation, virtual memory messages being displayed and, occasionally a Windows shutdown and reboot. The principal problem was memory leakage associated with the Print Monitor routine, which resulted in a substantial loss of virtual memory during print operations. This was fixed in WP 5408. A further residual, but relatively minor, problem associated with the cash account reprint function has been diagnosed. A fix (lower priority) will be issued for this in the future.



5.3.4 Printer Hanging

Several problems were detected which result in back office printer hang-ups under various specific circumstances. A fix for one class of problem, associated with memory leakage, has already been distributed as part of WP 5408. This has reduced the average incidence of such hang-ups. A second problem associated with printing

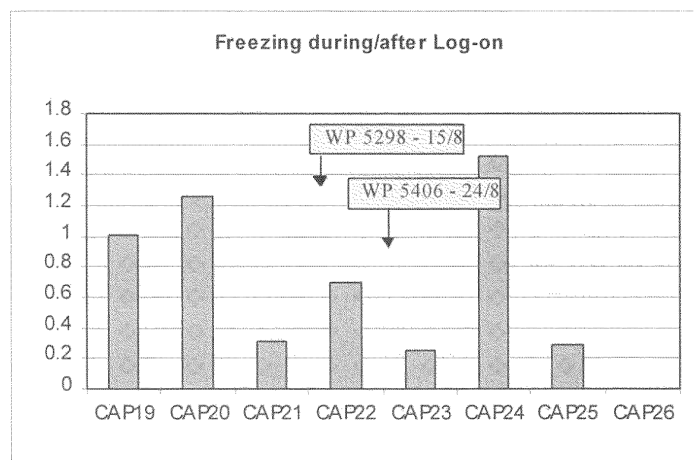
the 2 final copies of the cash account was identified, using results obtained from a diagnostic fix distributed to the live estate. The fix to the cash account print routine was issued on the 7th September. There have been no occurrences during the following two weeks (CAPs 24 & 25)



The residual count shown under CAP 24 relates to incidents from Thursday 2nd September.

5.3.5 Freezing during /after log-on

A number of incidents were observed in which the system froze after user log-on to Riposte. On detailed investigation these were all connected with the Riposte (35 day) message archiving procedure. After log-on various Riposte checks are called to trace message sequences for integrity and (potential) recovery requirements. It was found that certain of these routines were attempting to check message sequences which lay beyond the message archiving window, resulting in system lock-up when the messages could not be accessed. Three fixes were issued covering APS recovery routines and Stock Unit checking.

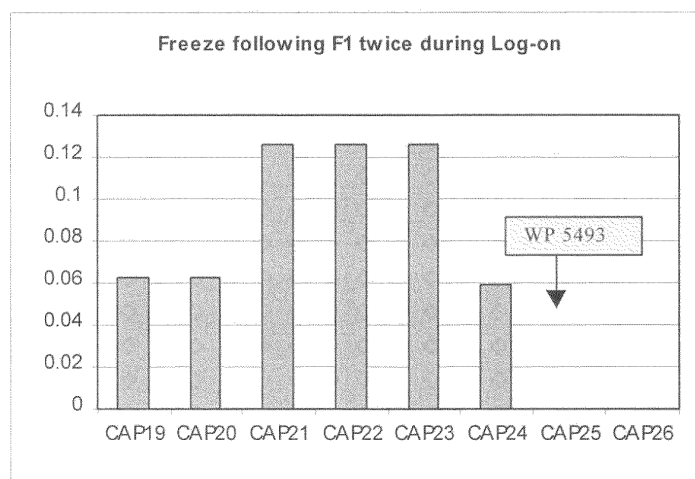


An occasional occurrence of freezing during log-in (prior to entering Riposte) has also been detected and this residual error is under investigation. Some instances of System Busy incidents have been discovered to relate to freezing after log-in, which accounts

for the significantly higher incident rate in CAP 24. Note that the “Double F1” problem (immediately following section) is also related and has had a significant effect on incidents during week 25.

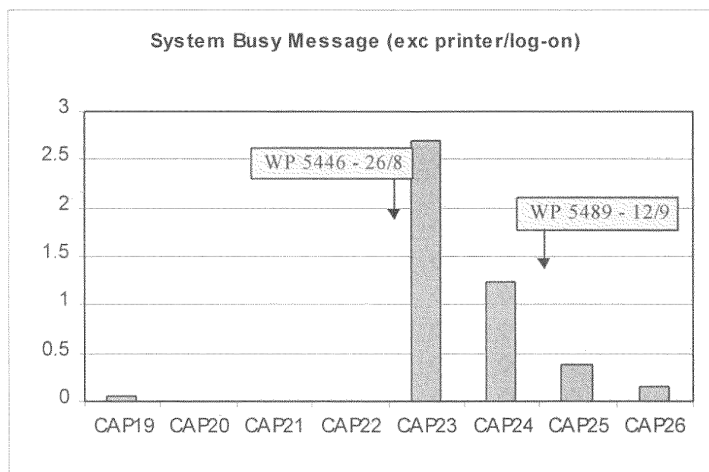
5.3.6 F1 Twice during log-on

This was a specific condition associated with incorrect handling of double keystroke “F1” during log-on (to navigate directly to “Serve Customer”) which could result in a system hang. A fix was issued for this (WP5406), which left a residual problem with certain OBCS book operations. A re-implemented fix was issued to cure this - see Section 5.3.12. A second fix to eliminate a small residual occurrence of the “F1” condition is under test at the time of writing and will be issued to the live estate during week commencing 13th September.



5.3.7 System Busy Message

This was introduced following discussion (via CR & Pathway CP2134) to provide visible indication to the user when the system is busy, particularly during longer, complex operations such as processing the cash account. This was distributed in WP 5407. The introduction of this message has itself resulted in a number of Help Desk calls, which have also been tracked and analysed. An improved version of the busy monitor routine was distributed (week commencing 6th September); this monitors only resource usage associated with the Riposte desktop and invoked applications. (The original utility monitored the total processor usage and could display the hourglass when background routines such as NT or Tivoli functions were consuming resource.)

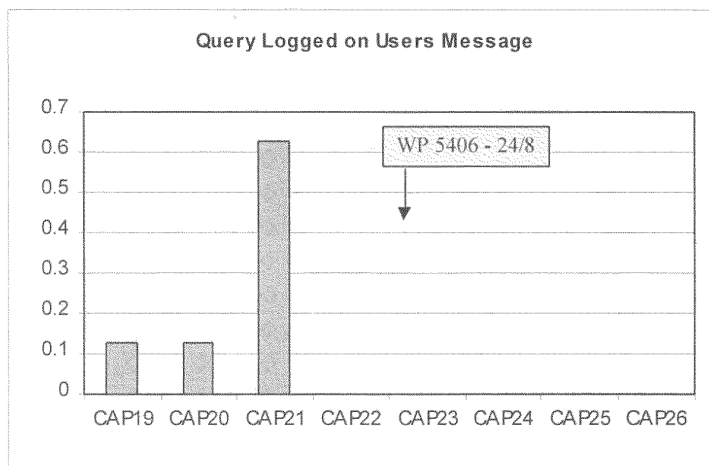


A minor problem has been detected with the operation of the Busy Monitor, in that after a few seconds it can partially obliterate a system message displayed on the screen if there is a printer problem when printing a Giro transaction. (This can occur when EPOSS is cycling awaiting the user response before continuing.) The touch panel is not disabled under these circumstances and the Help Desk will advise users to complete the response to the printer prompt, thereby allowing normal operation to continue without reboot. A “fix” to provide reworking of the Giro printer dialogue will be issued in due course. From CAP 24 specific problems associated with printer busy and log-on freezes have been separated into their own categories.

Note that it the clerk may legitimately return from a screen to a previous, having set off a print or transaction log query, and then undertake a second or third intensive transaction. A number of occurrences of the system busy condition are believed to result from such clerk initiated sequences. A block on the “previous” button is being investigated to preclude such behaviour.

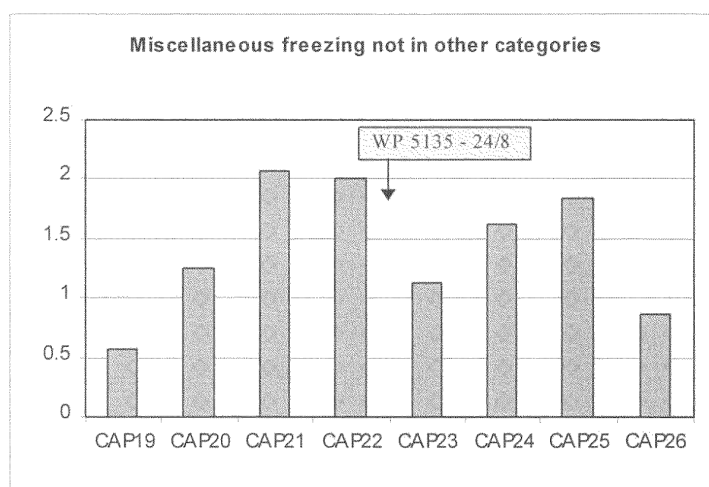
5.3.8 Query Logged-on Users Message

This was a specific problem that occurred during various operations when a user incorrectly received a message querying details of logged-on users. This was fixed in WP 5406, which has eliminated the problem.



5.3.9 Miscellaneous Freezing / Usage

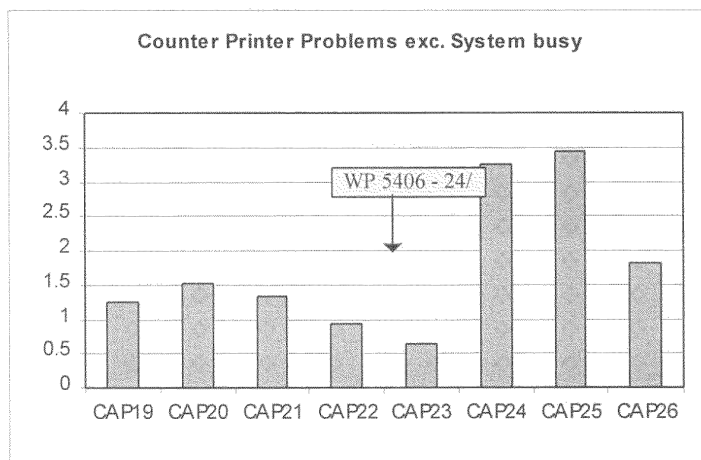
There have been a few occurrences of miscellaneous screen freezing during usage, mostly within Stock Unit declaration and balancing operations. A few reported occurrences were associated with virtual memory problems and are resolved with the fix identified in section 5.3.3. Several occurrences resulted from attempts to access message sequences beyond the 35-day archiving period and other occurrences are associated with multiple button pressing.



Diagnosis continues on these and appropriate fixes will be issued in due course.

5.3.10 Counter Printer problems

Two specific problems have been identified with counter printer operations. One was associated with the failure to print a second APS receipt, resulting in a subsequent system hang; this was fixed as part of WP 5406.

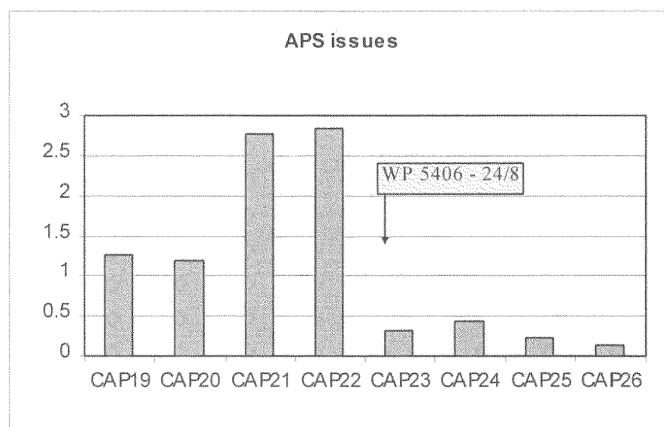


A second problem, associated with incorrect handling of printer failure conditions within the Giro transaction printing routine, has been identified and work is progressing on detailed diagnosis and resolution.

5.3.11 APS Problems

A number of APS application problems associated with receipt issue were identified (including the second receipt problem identified above).

In certain circumstances a failure in the APS receipting routines could leave buttons locked and a transaction on the stack. This was also fixed as part of WP 5406. A further fix was issued as part of the system freezing work (WP 5208) to specifically identify to the user the presence of APS recovery operations since this could give the appearance of a system freeze.

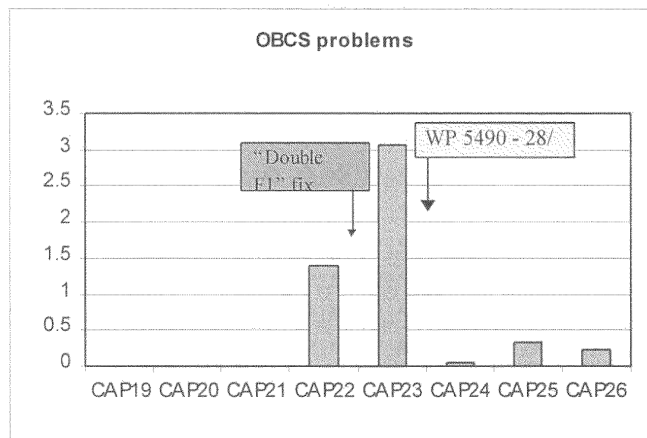


As can be seen, the overwhelming majority of APS related problems have now been eliminated.

5.3.12 OBCS Problems

The “Double F1” fix (see section 5.3.6) which resulted in problems with jumping screens during OBCS transactions (rather than normal screen navigation) introduced a further problem. This showed up on Help Desk call analysis as a significant problem

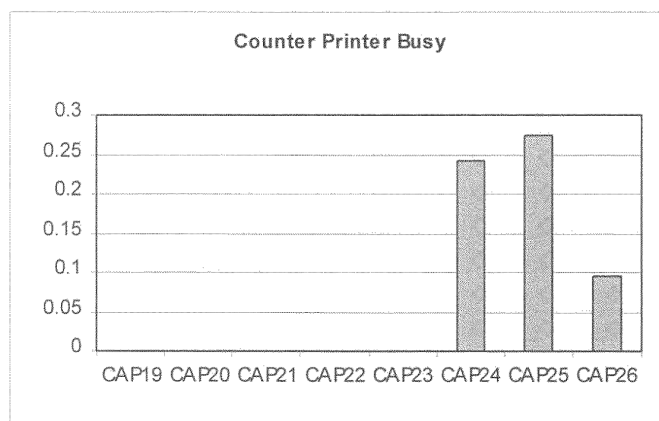
following the “Double F1” fix. The majority of the problems were addressed by WP5490; a fix relating to one further circumstance was included in WP 5405.



There have been no further recurrences of the problem.

5.3.13 Counter Printer Busy Problems

One particular class of problem shown up from the “system busy” indicator relates to a continuing counter printer busy condition returned to the application. These have now been classified as a particular incident type in their own right (from CAP 24).



A fix for the Riposte Peripheral Server is currently under test and is expected to be issued to the live estate during CAP 26.

5.4 Resolution of Incident Metrics

Pathway notes the POCL proposed metric of 1 system “lock-up” or “crash” (requiring reboot) per counter PC per annum.

The Pathway position is that this is an unrealistic and unwarranted requirement to be placed on the Pathway Solution.

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5.4.1. Contractual Requirements

There is no contracted Service Level which Pathway is required to meet relating to lost time associated with OPS system stability incidents. (Lost time at the counter may contribute to an increase in the volume of fall-back transactions which may fall within the service reporting requirements of individual services – EPOSS, APS and OBCS.)

5.4.2. Comparison against Industry Norms

The POCL proposed level is unrealistically high when compared against normal operational usage of complex distributed systems based upon Windows NT. Typical industry norms of 1 event per month are reported. It is noted by both parties that a periodic planned “preventative” reboot, outside prime usage time, may be a sensible measure to help reduce the incidence of unplanned reboots.

5.4.3. Acceptance Position

AI 298 was raised against Requirement 536, on the basis of Live Trial usage experience.

The planned acceptance testing associated with this Requirement was fully completed with no outstanding issues. This comprised a combination of detailed technical test and a review of the technical specifications of the relevant equipment.

ICL Pathway has accepted that there have been some incidents at outlets, which have affected certain aspects of system operation. As detailed within Sections 5.2 and 5.3 there has already been a significant reduction in such incidents from the earlier levels in June and July when this AI was raised. Pathway set an internal target of one (authorised) reboot per month per counter and proposes that achievement of this level reduces the incident to a medium severity. The levels of lost time associated with the current incident rate fall well within this yardstick.

5.4.4. Resolution Proposal

POCL has indicated a desire to associate this incident with a further metric which would represent an “acceptable” level of operation with respect to the occurrence of system incidents prior to the full outlet rollout.

ICL Pathway will use all reasonable endeavours to reduce the incidence of interruptions to normal counter operations resulting from the use of the OPS platform and the Riposte desktop functions. Pathway has set a longer term (6 months) internal target of 1 Help Desk authorised reboot incident per counter per 4 months measured over the actual population of rolled out counters. Workarounds taking longer than

**ICL Pathway Acceptance Incident 298 – Resolution
Plan**Ref: CR/ACD/298
Version: 0.8
Date: 23/9/99

four minutes will counts as reboots. This represents a fourfold improvement beyond the initial target.

Monitoring during Oct/Nov

The success criteria in relation to this AI to be evaluated in November in relation to the continuation of national roll-out in January 2000 should have the following characteristics:

- The number of outlets installed within the live estate at 1st October, providing this number is at least 750, or if less than 750, the number at the end of the week during which 750 outlets is achieved.
- Incidents to be quantified in “units” where:
 - Help Desk authorised re-boots and Office Snapshot Print Previews to count as one unit;
 - Other workarounds to remove invalid no-entry signs to count as half a unit;
 - New workarounds to remove the need for re-boots (such workarounds to take less than 10% of the combined reboot and recovery time) to count as a half unit (those exceeding 10% to count as one unit).
- The rate of occurrence measured over the 4-week period to mid-November 1999 (CAP 31-34) should average no more than one unit per counter position per 3 months.

In addition, ICL Pathway will be entitled to continue the good business practice of planned reboots outside working hours not to exceed one per month per counter position.

Ongoing improvement and longer term

It is important to recognise that ICL Pathway is strongly motivated to reduce such incidents as they directly affect its own costs through staffing levels required at the Help Desk. The Pathway Help Desk model and projected staffing levels are consistent with this approach. For ICL Pathway this equates to a requirement to deal with up to 700 such calls per week as the outlet population increases over the next six months (and the incident rate falls). Clearly Pathway will be strongly motivated to seek any further possible reductions in incidents to reduce the corresponding call rate applied to a full estate.

For POCL the achievement of the ongoing target of 1 reboot per 4 months would result in a predicted loss of service of the order of 6.25 minutes per counter per month. For a typical outlet operational period of 42 hours per week this equates to a loss of service of < 0.06% per counter. In reality lost customer service time is likely to be significantly less than this since the above calculation:

- (i) makes no allowance for the possibility of directing customers to other counters during an incident

(ii) makes no allowance for that proportion of incidents which occur during back office processing and have no direct impact on customer service.

The incident analysis which has been jointly undertaken to date and the improved level of understanding of system usage within the live outlets both suggest that the target will be met within the projected 6 months. The most recent rate of authorised reboot incidents is approaching half the initial target level, leaving a further required halving to reach the final target. Pathway has undertaken analysis of several outstanding incidents and diagnosed the detail of the problem. Software fixes will be progressively released following regression testing which will see a further reduction on the current incident rates towards the target. Hence the progression towards the target is already substantially underpinned by known, diagnosed problems which are awaiting fix issue.

5.5 Improved Defect Removal for Future Releases

The level of testing conducted on the Pathway solution has by any standard been exceptionally high (over 100 dedicated testers, a staggering array of test environments, at a cost of 10s of £Millions). The large, complex and distributed nature of the system demands a sophisticated multi-layered approach to testing and integration. The strategy was developed and agreed in conjunction with the sponsor organisations at the outset, and was independently assessed during the treasury review as being 'leading edge'. It has been maintained in the light of experience of Release 1, and is currently again under review in respect of Release 2 (CSR). Of particular importance here is the experience of the Live Trial period, and the lessons that may be learned to further improve the Defect Removal rate for future releases, and so reduce the number of incidents encountered in the Live Estate.

5.5.1 PINICL Analysis

A review is underway of all the PinICL fixes applied across the whole of the Counter systems for the Live Trial Period. This period was split into 3, known as LT1, LT2, and CSR. Initial findings, measuring up to 31/08/99, indicate that a total of 133 PinICLs were involved. Of these, 2 were data related (including 1 on POCL Reference Data), 1 was build related, and 2 were purely administrative to introduce the decommissioning of BPS, leaving 128 software faults to be considered in all. (It may be of interest to note here that about 30 of these were for BPS, although this does not have a material bearing on the analysis.)

Of these 128 faults, just 50 were actually raised from activity in the Live Trial. The other 78 were all in fact raised during the course of testing. (Most of these were found long before the Live Trial in Pathway's System Test and Integration Test stages or in the MOT/E2E test stages immediately before the Live Trial. These were the subjects of agreed deferral via the KPR process, to allow for their controlled introduction

during the course of the Live Trial, to avoid destabilisation. A small number were raised after the KPR, as a result of Pathway's ongoing regression testing)

The records for these PinICLs have been analysed to determine the nature of the defects concerned. As a result they have been categorised accordingly, to help assess how best the Development Lifecycle, and in particular the testing and integration approach, may be revised to best detect such defects earlier, and so better protect the Live service. A large number of low level classifications were used, which can be summarised into the following high level categories:

1. Usability/Robustness:

MMI, Menus, Button locking, No-Entry signs, Double key strokes, Cosmetics, Enforcement of correct practice, Operational usability, Correct error handling, etc.

2. Stability/Performance:

Screen freezes, Printer hangs, Memory leaks, Blue screens, NT messages, Archiving anomalies, Function performance.

3. Application Logic:

Plain software bugs.

Initial findings indicate that the 128 fixes applied to during the Live Trial (78 faults found in Testing and 50 faults found in Live) can be categorised as follows:

Category	Testing Faults	Live Faults
Usability/Robustness	38	38
Stability/Performance	14	5
Application Logic	26	7

(To set these figures in context, overall testing has trapped several thousand defects, commensurate with the great size and complexity of this system.)

The following conclusions can be drawn:

- The overall approach has been extremely successful in reducing the exposure of the Live Estate to a very small residue of defects remaining in the system (which the industry recognises can never be entirely eliminated, although there is always room to improve).
- The incidence of defects discovered is demonstrably reducing over time, indicating a steady improvement in overall system stability.

- There is clear evidence that the majority of defects in the Usability/Robustness category have been trapped during testing, despite this being a notoriously difficult and expensive problem domain to address exhaustively through testing.
- Nonetheless, the majority of defects escaping capture during test are in the category Usability/Robustness, suggesting that there really is no substitute for genuine Live exposure to flush out these types of defect (as per generally accepted industry wisdom). It also suggests that this is the main area to target for future improvement, offering more scope. Further to this, the report from the EPOSS Defensive Test exercise was encouraging. It indicates that such short focussed test activities, concentrating on particular aspects of system usage, can have considerable success in removing defects both of the Usability/Robustness and Stability/Performance categories.

(The EPOSS Defensive Test exercise was an additional test initiative introduced by Pathway to satisfy test objectives relating to Usability/Robustness, which it was recognised had not been fully met by the Model Office exercise and the EPOSS Usability Trial.)

- Testing has eradicated all but a very few remaining Stability/Performance defects, albeit that these can impart a disproportionate effect on the Live Estate, further suggesting the importance of a Live Trial or equivalent period, where the impact on the business can be limited and controlled. The fact that a significant number of such defects were still being discovered in these late testing stages indicates that there is potential for improvement here also. It suggests that a more detailed analysis of the precise circumstances of these defects should be conducted to determine any common factors and to assess whether any benefit is to be had from specific testing actions earlier in the lifecycle.
- Testing has eradicated all but a very few remaining Application Logic defects. Little scope for improvement in this area, other than the perpetual goal of earlier discovery.

A further observation arising from the analysis would be that many of the PinICLs arising in the Live Trial system had in fact been the subjects of earlier PinICLs raised during the course of Testing. This is a common phenomenon. Typically it comes about because for certain classes of defect (particularly where it is related to timing, or multiple streams of activity in combination) the symptoms revealing the defect can not easily be reproduced until the underlying defect is properly understood. Because it cannot be reproduced the underlying defect can not be properly diagnosed. The faults are then often put down to some flaw in the test environment, or the wrong code versions being used, and the PinICL is closed 'unable to reproduce'. There is no easy remedy.

5.5.2 Implications for CSR+

A full review of the testing conducted for Release 2 (CSR) has already been conducted and a proposal document has been drafted “Revisions to the Testing & Integration Approach for Pathway Release CSR+”. Based on the findings above ICL Pathway and POCL will jointly consider the following proposals, and as agreed include them within a definitive version of that document. This review will take place by 30/10/99 and the definitive version of that document will be published by 24/11/99 and brought into effect from this date

- a) Analyse the precise circumstances of the defects in the Stability/Performance category. Identify any common factors.
- b) Analyse the precise circumstances of the defects in the Usability/Robustness category. Identify any common factors.
- c) From (a) and (b) above, establish any potential test points for existing testing stages, and, as reasonably necessary, extend their respective objectives/review-checklists accordingly. (Include Unit Test, System Test, and Conformance Test.)
- d) As reasonably necessary, extend Code Review checklists to cover the specifics from (a) & (b) above, with particular emphasis on the handling of exception conditions.
- e) Adopt the principles of the EPOSS Defensive Test exercise for wider application, and in particular to mount earlier exercises specifically targeting those attributes identified in (a) and (b) above. It is important that such test activities include the involvement of design-aware ‘experts’ having intimate knowledge of system areas subject to test and capable of targeting potential areas of weakness. Involvement of Users should also be considered to address usability related aspects.
- f) Work with POCL in determining appropriate and agreeable alternative(s) to the Live Trial for future releases, to allow each new product to be exposed to substantial Live use, but with limited business impact, for an appropriate period of time prior to general (national) release.

It should be noted that CSR+ has already benefited from the revisions included in the Testing Strategy and will, in due course, from the additions listed above. A lifecycle-wide review was also conducted earlier in the year, which resulted in a major reorganisation of the Systems and Programmes Directorates into the new Development Directorate. Amongst the initiatives introduced at that time were many which addressed lessons learned from earlier releases to improve the Design and Development stages for CSR+ and beyond. Of particular relevance here are:

- a) The formation of Delivery Units, focussing on particular Business and Infrastructure areas, made up of mixed discipline teams combining Design, Development, Unit Test, and System Test, and so promoting higher product quality levels and greater lifecycle awareness. As each Delivery Unit spans all the platforms supporting the end to end business applications within their respective areas, this will also help to address the risks previously associated with cross-paradigm boundaries.
- b) The formation of the Technical Design Authority, providing central support to the Delivery Units, with particular responsibility to oversee the end to end design and ensure the overall technical integrity of the solution as a whole. One activity currently under way is the systematic retrospective reviews of the end to end Designs across the whole solution for CSR+. It should be noted here that these reviews are not restricted to targeted reviews of the changes at CSR+ but also encompass those areas of CSR+ inherited from CSR. (For example, it is planned to review the EPOSS, TPS and RDMC/RDDS systems on an end to end basis, not just the minor changes made in these areas at CSR+.) Pathway will also consider seeking the involvement in these reviews of other expert areas within ICL, external to Pathway, to bring an independent view for certain critical areas.
- c) General improvements in the areas of Design Review, Code review, Module Test Review and Link Test Review.
- d) Strengthening of Product Acceptance Test (on entry to Pathway) for 3rd Party developments.
- e) Closer working relationship between the Delivery Units and the Technical Integration area to promote rapid environment stabilisation.

Pathway already has in train a set of initiatives to improve the defensive measures deployed within the system in key risk areas. Much has already been done to introduce interlocks within the counter applications to preserve and protect the serial dependencies inherent in the VB runtime environment. This in large measure has eliminated the specific 'double entry' and parallel process 'hanging' issues underlying many of the Usability/Robustness and Stability/Performance problems. The future strategic goal here is the gradual introduction of more generic defensive measures, including a full cross-phase locking mechanism.

Following on from the recent investigations into residual memory problems under certain complex scenarios, Pathway has decided to deploy the BUSY.EXE toolset more widely in testing for CSR+, using it in a pre-emptive fashion rather than purely as a debug tool.

ICL Pathway believes that introducing further changes to the Design and Development stages (other than ensuring that good practice is maintained) would

result in only a marginal reduction of the defects in question. The majority of the CSR+ functionality has now entered Link Test or System Test, so it would be sensible at this stage to focus in these and later stages of the lifecycle.

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		Version:	0.3
	COMMERCIAL IN CONFIDENCE	Date:	7/09/99

Document Title: Development Of Manual Describing Use Of OPS, TMS and EPOSS APIS Within ICL Pathway

Document Type: Specification

Release: N/A

Abstract: This document describes the content and development timescale for the production of the "ICL Pathway Generalised API for OPS/TMS"

Document Status: Draft

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0.0 Document Control

0.1 Document History

Version No.	Date	Reason for Issue	Associated CP/Pin ICL No./ Acceptance Incident
0.1	23/8/99	Draft – for peer review	AI 314
0.2	1/9/99	Revisions in response to comments received from POCL 31/8/99	AI 314
0.3	7/9/99	Revisions agreed at Acceptance Workshop held on 2/9/99 also review comments from J Folkes 7/9/99	AI 314

0.2 Approval Authorities

Name	Position	Signature	Date
John Dicks	Director – Customer Requirements		
Terry Austin	Director – Development		

0.3 Associated Documents

Reference	Version	Date	Title	Source
	Release 17		On-Line Standards: Processes – Document Management	ICL Pathway On-Line Standards
TD/ARC/029	0.2	11/5/99	TMS Architecture Specification	ICL Pathway
TD/ARC/030	0.2	21/5/99	OPS Architecture Specification	ICL Pathway
SD/STD/001	2.0	3/8/99	Horizon OPS Style Guide	ICL Pathway
SD/DES/005	6.0	6/7/99	Horizon OPS Reports and Receipts	ICL Pathway

0.4 Abbreviations/Definitions

Abbreviation	Definition
AI	Acceptance Incident
API	Application Program Interface
EPOS	Electronic Point Of Sale
EPOSS	EPOS Service
NDA	Non Disclosure Agreement
OPS	Office Platform Service
PPD	Processes and Procedures Document
TMS	Transaction Management Service

0.5 Changes in this Version

Version	Changes
0.1	None – this is the initial draft
0.2	Revisions incorporating comments received from POCL 31/8/99. This includes new sections on Agent Interfaces and System Management
0.3	Document commits to the Pathway specific APIs being defined as required for the development process; a list to be given of those APIs the use of which are 'prohibited' within the Pathway environment, the addition of an appendix containing technical details of Systems Management and Key Management that would be subject to an NDA, and a new section on Standards. Changes following review comments from J Folkes 7/9/99.

0.6 Changes Expected

Changes
None

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1 Introduction

This defines the content and production plan for the document:

“ICL Pathway Generalised API for OPS/TMS”

This document is for internal Pathway use by application developers.

It is also to be supplied under the Contract (in compliance with Requirements R469, R470 and R869(part)) to POCL for the purpose of enabling POCL to procure applications to run on the Service Infrastructure (i.e. interfacing with OPS and TMS). As such it will be provided to Third Parties.

The OPS Architecture Specification describes the architecture for counter applications operating within the OPS/TMS framework, and describes the interaction of counter applications with OPS and TMS. The document expands on the architecture set out in the OPS Architecture Specification.

2 Scope

The document is intended for application developers within ICL Pathway or Third Parties. The purpose of the document is to enable developers to understand the architecture employed and the facilities available within the ICL Pathway solution, utilising OPS, TMS and EPOSS. The document is intended to provide developers with sufficient details to plan the development of new applications operating in this environment. The developers may be ICL Pathway staff, POCL staff or Third Parties. The document will contain definitions of those Pathway specific APIs essential to utilising OPS, TMS and EPOSS.

In the context of the Contract, it is available to POCL to enable the procurement process. Any supplier of Riposte based applications must obtain a development licence from Escher, who would supply the reference manuals for the Escher specific APIs:

Escher Group Ltd.
101 Main Street
Cambridge
Massachusetts
USA

3 Document Standards

ICL Pathway shall produce the document in accordance with the ICL Pathway On-Line Standards for document production. In essence, the document shall conform to a standard template, be written in Microsoft Word and shall be subject to a document review cycle, with comments and responses being formally recorded.

A draft of the document shall be produced and reviewed within ICL Pathway according to the ICL Pathway Document Review Process. A baseline version incorporating changes from the review will be submitted to POCL.

A formal review of the comments received at the end of the review period, assumed to be 2 weeks, will be conducted with representatives of POCL. The review meeting will agree the method of resolution of all comments raised.

A revised version of the document incorporating agreed changes will be baselined and introduced into the Core Documentation Set under CCN.

4 Content of ICL Pathway Generalised API for OPS/TMS

This shall be as follows.

4.1 Introduction

This section describes who the document is intended to be read by, and the conventions used.

4.2 Context

This identifies the relationship of this document to the OPS Architecture Specification, which describes the Retail Broker, Peripheral Broker and Riposte OCXs used in application development and how applications should be developed. It identifies also the relationship to the TMS Architecture Specification that defines the way Riposte facilities are used across the TMS domain. The relationship to the Access Control Policy and OPS Style Guide is also defined.

4.3 Scope

The document provides a description of the context in which the APIs are used for the application developer. These are expressed in terms of the business functions supported by EPOSS, the application functionality supported by OPS/TMS, and other application interfaces that need to be supported in the OPS/TMS environment.

The document will define APIs that have been created or modified by Pathway. It will list any relevant Escher supplied APIs and will list Riposte APIs that are excluded from the Pathway implementation.

4.4 Business Functions

4.4.1 EPOS

This section describes the concept of the 'Sale' of a product, its relationship to POCL Reference Data and the data structures involved.

4.4.2 Settlement

This section defines the concepts used in the settlement of a customer session, the impact of session transfer and how settlement data is sent to clients.

4.4.3 Stock Unit Management

This section identifies the concepts involved in the use of Stock Units, defines the difference between shared and individual stock units and describes the data structures involved.

4.4.4 Reporting

This section will describe the reporting functions that are available to the application developer.

It will identify how a Cash Account is constructed using Reference Data and will describe the data structures involved. It will cover the way receipts are produced and cross refer to the document Horizon OPS Reports and Receipts.

4.4.5 Balancing

This section covers the way a Stock Unit balance is achieved and its relationship to the office level Cash Account.

4.5 Application Functions

4.5.1 Architecture

This section will cross refer to the appropriate sections in the OPS Architecture Specification.

4.5.2 Peripheral Server Interfaces

This describes the interface provided to support the use of input and output devices.

4.5.3 Retail Broker Interfaces

This describes the interfaces needed to add the sale of a product as a transaction to the stack (list of transactions in the current session) presented to the clerk, to cancel transactions and deal with any additional processing required at the point when a session is settled.

4.5.4 Desktop Interfaces

This chapter describes how the desktop interface is controlled by the use of standard OCXs and identifies those available for use by the application developer and those controlled by the system.

4.5.5 Riposte Functions

This chapter describes the interfaces needed to handle messages and persistent objects.

4.5.5.1 Messaging

The section on messaging describes how messages are created and retrieved. It deals also with the concept of markers, checkpoints and message ports. How to create and wait for the response from queries is also covered as is how to start, end and undo a transaction.

4.5.5.2 Persistent Objects

The section on persistent objects (such as reference data) covers the use of local databases as well as the location of existing objects and the creation of new ones.

4.5.5.3 Parsing Functions

This section describes the concept of attribute grammar and how attribute grammar and messages are parsed.

4.6 Agent Interfaces

4.6.1 Bulk Agent

The interfaces used by both bulk inbound and bulk outbound data transfer agents are described.

4.6.2 Interactive Agents

The interfaces used by both interactive inbound and outbound agents are described.

4.6.3 Enquiry Agents

The interfaces used by enquiry agents are described.

4.7 Other Functions

4.7.1 Administration

This section describes the system supplied administration and configuration functions.

4.7.2 Security

The security functions that are available to the application developer are covered, including an outline of functions and facilities available for cryptographic key management.

The Appendix gives details of key management within the Pathway implementation.

4.7.3 Availability

This section covers the concept of SLAs. It describes the impact of End Of Day processing and of disconnected counters on availability of the service to the clerk.

4.7.4 Usability

This section identifies how the interface to the clerk should be implemented and describes the scope of MMI rules identified in the Horizon OPS Style Guide.

4.7.5 Performance

This section identifies the main issues to be considered to minimise the impact of new applications on the existing OPS application services.

4.7.6 Resilience

This section describes the resilience provided by Riposte and the additional functionality that applications have to provide to deal with the impact of hardware, communications and software faults.

4.8 Standards

4.8.1 Naming Standards

This section defines the naming standards to be used for application components, messages, and persistent objects, events and attributes.

4.9 Systems Management

This section covers the basic elements of systems management that need to be considered in the procurement context of a new application. Further information on those aspects of systems management that developers will require is contained in the Appendix. This will be subject to Non Disclosure Agreement.

4.9.1 POCL Reference Data

This section describes how POCL Reference Data is accessed, the temporal nature of such reference data and the process used to maintain such data.

4.9.2 Event Reporting

This section describes the application interfaces to be used for event reporting, including the reporting of exception conditions.

4.9.3 Software Packaging

This section describes how software comprising new applications is to be handed over to ICL Pathway for system integration testing, and the documentation needed to support such handovers. This section gives an overview of the systems and integration process and subsequent processes leading to implementation of the new application.

5 Development Timetable

The baselined version of this document, without the Appendix, is to be available by the end of November 1999.

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The Appendix is to be available by end January 2000.

(A)Appendix - Systems Management and Key Management

This Appendix is subject to Non Disclosure Agreement

Systems Management

This document expands on the Systems Management information outlined in section 4.9.

In particular, this section defines how software comprising new applications is to be handed over to ICL Pathway for system integration testing, also the documentation needed to support such handovers. For instance, such documentation must include program specifications and must list all the exception conditions catered for, together with resource requirements.

The section defines the way that EXEs, OCXs and DLLs are packaged for distribution and support purposes.

Key Management

Where a new application may employ encryption, Pathway anticipates that discussions with the Supplier of the new application will be initiated at the earliest appropriate stage. This section gives details of the functions for key management in the Pathway environment including the distribution of keys to post offices.

Second Supplemental Agreement Annex to Schedule 2

Acceptance Incident Analysis Form		<i>To be completed by the ICL Pathway Acceptance Manager: to be given to the Horizon Acceptance Incident Manager</i>	
Acceptance Incident Number (1) 342		Analysis Sequence Number (2)	
Acceptance Test Name (3) TIP Interface			
Analysed Incident Severity (4)		High / Medium / Low (4) Medium	Authority (5)
Analysis of Acceptance Incident (6) All incidents identified by TIP relating to file and/or transaction delivery were reviewed at Chesterfield (29/7/99); a further incident (TIP889 – 3/8) is under investigation. Incidents fall into two categories, plus a further question relating to FTMS gateway file housekeeping. 1. Delayed transaction delivery from outlets. Transactions are not harvested from Outlets in the following circumstances: 1. One or more Counter PCs cannot be synchronised with the Gateway PC at the post office. This may be because they have a fault, or because they have been switched off. 2. At a single counter post office, there is a fault with the mirror disk 3. Failure of the Gateway PC 4. Failure to communicate via the ISDN line These conditions are characterised by there not being an End of Day marker in the central journal file for the Outlet concerned ("non-pollled post office"). The facility to monitor and report on non-pollled outlets was part of the BES harvesting suite, removed following DSS withdrawal. Since then an ad-hoc database analysis has been in place to identify such outlets and a new ongoing reporting system is in the process of introduction (CP2078) to produce an automatic report which is emailed daily to the Business Support Unit who log an incident with the HSH for immediate investigation. 2. Files delivered late from the TPS Hosts to TIP This can happen if a fault has occurred during the processing cycle such that the delays incurred mean that the production and transmission of the files for TIP is not in line with the SLAs. The majority of incidents reported under this category have occurred during failover testing between Wigan and Bootle sites, which represent exceptional circumstances and are not representative of normal systems operation. 3. File Housekeeping on FTMS gateway servers The housekeeping in the FTMS servers has been corrected (PINICL 27537) to ensure that files for each Service (e.g. TIP) are only held for the period set out in the corresponding AIS. This is documented in "Pathway to Post Office Technical Specification" ref. TI/IFS/008 section 6.2.3. Details of the parameters for the file retention period are given in the internal design document "FTMS Configurations for Pathway TPS and POCL TIP Links at Release 2" (ref. TD/ION/005).			
Clearance Action (7) This is essentially the same as that proposed for AI371, relating to HAPS SLA.			

Second Supplemental Agreement Annex to Schedule 2

Procedures Required

Procedures are required to cover the following.

1. An incident to be raised with the Horizon System Helpdesk at the earliest appropriate time when an Outlet is not polled.
2. Pathway to produce daily (internal) reports monitoring the transmission of the TIP files, the numbers of files and the times of transmission and receipt acknowledgement.

Program Changes Required

1. An automatic report to be produced overnight to detect instances of non-polled post offices, and an email report automatically sent to the Business Support Unit (BSU). This daily report will list:

- Date of report
- FAD code
- Date since the Outlet was last polled

This will be implemented during CSR as an urgent development.

[Note – This facility has been developed and is expected to be Released shortly.]

The BSU will follow the new procedure set out in the “New Procedures” section below.

New Procedures**a. Non-Polled Outlets**

1. The BSU have implemented a new procedure whereby they report incidents of non-polled post offices to the HSH. This is currently done on receipt of a manually produced report of non-polled post offices. This report is due to be produced automatically (see item 2 in “Program Changes Required”).

Status: This procedure has been implemented. It is possible to email a copy of this manually produced report to a central POCL Service Management function as an interim measure before the procedure set out in item 2 below is available.

2. Customer Services require a procedure whereby they update the “On-Line Problem Management Database” Web Page. This is an existing Web Page, which is accessible to POCL Service Management, and lists various problem issues. This will enable the TIP team to enquire on non-polled post offices.

Status: This procedure has been agreed and will be implemented when the automatically produced non-polled report is available (see item 2 Program Changes Required).

b. Central Processing Delays

1. A draft copy of the Interim Transaction Information Processing System ICL Pathway Operating Level dated 15/03/99) has been sent to POCL for review. In discussions, TIP have indicated that they do not require advance warning of potential delays in TIP files being sent to TIP. There are contractual remedies if Pathway fail to meet the SLA timescales.

Status: The Operating Level Agreement is in draft form and Pathway is waiting on POCL for comments. The draft OLA does not include provision for Pathway Operations to inform TIP Operations of likely delays in the transmission of TIP files.

2. Pathway OSD have implemented a new procedure whereby they produce a daily Operations Service Management Report.

Status: This is for internal Service Management only, but does show the transmission of the TIP files, the numbers of files and the times of transmission and receipt acknowledgement

Second Supplemental Agreement Annex to Schedule 2

of files and the times of transmission and receipt acknowledgement.

Pathway believes that the actions put in place provide adequate assurance that appropriate procedures exist for dealing with potential service delivery problems on an ongoing basis. If SLAs are not met, for any reason, remedies will apply as per G10 Schedule. Specific ongoing monitoring of non-polled outlets can be continued via the mechanism described above, if desired by TIP.

On this basis Pathway believes the incident is, in effect, resolved, and an extended period of monitoring to 1/10/99 is proposed during which the specific actions within the Clearance Actions will be checked for completion.

This Clearance Action has been agreed by POCL and this Analysis form documents that agreement in accordance with the action agreed at the Acceptance Workshop on 25/8/99.

Acceptance Incident Status (Open/ Analysed Retest/Recommended for KPR (8))		Agreed Resolution Plan	
Signatures:			
I propose the Clearance Action and Incident Status described above	P. John Pope	ICL Pathway Test Manager	16-Sep-99
I accept / reject the Clearance Action and Incident Status described above		Horizon Acceptance Test Manager	
Horizon Acceptance Incident Manager			Date:
DSS Acceptance Manager		POCL Business Assurance	
	Date:		Date:

Table extracted from BA/ACC/020 Version 0.4 dated 20/9/1999

OBCS failures testing approach and rectification plan

The proposed rectification plan has two elements:

- further actions required to enable the completion of comprehensive analysis on each potential or perceived cause of the problem;
- proposed solutions, which when implemented, should deliver a reduction in the level of manual inputs.

Further analysis required

Topic area	Sub topic	Proposed action	Lead	Outputs	Proposed target date
System, Procedures and Order Books	Approach for further tests, analyses and observations	Production of paper outlining the approach to be deployed in the 'pilot' and further testing, analyses and observations planned to commence w/c 27 September	POCL (with input from ICL Pathway and DSS)	Agreement of paper	28 September
System issues	Hardware and software	Pilot scheme at 'live' offices, on receipt, issue, encashment and redirection transactions	POCL	Paper recording the results of the pilot, including initial feedback and changes required to the process prior to further testing	8 October
System issues	Hardware and software	Further tests following 'pilot' scheme, on receipt, issue, encashment and redirection transactions	POCL	Paper recording the final results, including proposed way forward (dependant on the outcome of the tests)	12 November
System issues	Human Computer Interface	Study to identify potential areas of confusion/improvement opportunities.	POCL (with input as required from ICL	Change requests submitted, as appropriate	26 November

			Pathway/ DSS)		
Training materials/delivery (ICL Pathway)	Communication of revised procedures (I)	Confirmation of the process for communicating revisions to procedures during the lifetime of a release. To include revision to training material and communication to trainers.	ICL Pathway	Paper outlining the process, focusing on the initial training i.e. the training performed by ICL Pathway (ICL Training Services) personnel*.	1 October
Training materials/delivery	Configuration management	Confirmation of the process for ensuring that changes to system design /procedures are reflected in draft/final versions of the training workbook (i.e. during the development of the workbook for a particular release).	ICL Pathway	Paper outlining the process*.	1 October
Training materials/delivery (POCL)	Communication of revised procedures (ii)	Confirmation of the process for communicating revisions to procedures during the lifetime of a release. To include revision to training material and communication to trainers.	POCL	Paper outlining the process, focusing on the on-going training i.e. the training performed by POCL personnel*.	1 October
Procedures	Correct application of procedures	Observations during the 'pilot' commencing w/c 27	POCL	Report outlining the initial findings, including	8 October

		September		proposed way forward (dependant on the outcome of the observations)	
Procedures	Correct application of procedures	Observations during the further tests following the 'pilot'.	POCL	Paper recording the final results, including proposed way forward (dependant on the outcome of the observations)	12 November
Procedures	Communication of revised procedures	Confirmation of the process for communicating revisions to procedures during the lifetime of a release. To include the communication of urgent information.	POCL	Paper outlining the process for communication both urgent and non-urgent changes to the User Guide *.	1 October
Order books	Analysis of barcodes	Analyse barcodes of books which are impounded during the pilot commencing w/c 27 September.	POCL (using independent 'tester')	Report on the initial findings on the quality of barcodes from books impounded in the live environment, including proposed way forward (dependant on the outcome of the analysis)	8 October
Order books	Analysis of barcodes	Analyse barcodes of books which are impounded	POCL (using independent	Final report on the quality of barcodes from books	12 November

		during the further tests following the 'pilot'.	'tester')	impounded in the live environment, including proposed way forward (dependant on the outcome of the analysis)	
Order books	Analysis of printing/paper	Analyse the printing/paper of books which are impounded during the pilot commencing w/c 27 September	ICL Pathway (PIRA)	Report on the initial findings on the quality of the printing/paper of books impounded in the live environment, including proposed way forward (dependant on the outcome of the analysis)	8 October
Order books	Analysis of printing/paper	Analyse the printing/paper of books which are impounded during the tests following the pilot	ICL Pathway (PIRA)	Final report on the quality of printing/paper from books impounded in the live environment, including proposed way forward (dependant on the outcome of the analysis)	12 November

Proposed solutions

Topic area	Sub topic	Proposed action	Lead	Outputs	Proposed target date
Training materials/delivery	Training workbook revisions	Reword paragraph(s) relating to non barcoded books. Emphasise that	ICL Pathway	Draft of the changes, for review	24 September

		books should only be scanned once, where an impound message is displayed. Emphasise correct procedure for 'system failure' i.e. to use this option <i>only</i> when the barcode reader is faulty and when the failure has been reported to the HSHD.			
Training materials/delivery	Communication of revised procedures	Confirmation of the communication of the revised procedure for new Horizon offices during training events	ICL Pathway	Copy of the trainers' 'addendum' documenting the amendment	20 September
Procedures	Communication of revised procedures	Confirmation of the communication of the revised procedure for new Horizon offices	POCL	Copy of the communication issued to new Horizon offices	20 September

ICL Pathway

Acceptance Proposal
Acceptance Incident 372

Ref: CR/ACD/372
Version: 0.4
Date: 16/9/99

Document Title: Acceptance Proposal for Acceptance Incident 372

Document Type: Acceptance Proposal

Abstract: This document contains the agreed Closure Plan in respect of Acceptance Incident 372.

Status: Issued

Distribution: Expert:
Peter Copping

ICL Pathway:

Library

POCL:
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Jeff Austin

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Comments to: ICL Pathway list

Comments by:

ICL Pathway

Acceptance Proposal
Acceptance Incident 372Ref: CR/ACD/372
Version: 0.4
Date: 16/9/99

0 Document control**0.1 Document history**

Version	Date	Reason
0.1	23/8/99	Initial draft for comments
0.2	24/8/99	Version for Expert and Workshop 25/8/99
0.3	8/9/99	Version documenting the agreed Clearance Plan Plan.
0.4	16/9/99	Further version following Acceptance workshop action documenting the agreed Clearance Plan Plan.

0.2 Approval authorities

Name	Position	Signature	Date
J H Bennett	Managing Director		
J C C Dicks	Customer Requirements Director		
T P Austin	Development Director		

0.3 Associated documents

Reference	Vers	Title	Source
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0.4 Abbreviations

ATE	Automated Targeting Engine
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0.5 Table of content

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1. Purpose

This document sets out the ICL Pathway proposal to the Expert with respect to Acceptance Incident 372.

2. Summary

ICL Pathway accepts that there were some system management incidents during the CSR LT1 to LT2 system upgrade activity during the Live Trial period. Although the scale of problems was relatively modest for the number of outlets involved (299), the problems encountered, if left uncorrected, would cause difficulties in rolling out future software upgrades to a much larger live estate. Thus ICL Pathway accepted a Medium severity assessment.

Since the Acceptance Incident was raised the three important issues, that were the root cause of the incidents, have all been fixed and details have been provided to POCL. Ongoing monitoring and reporting of the systems management operations are already in place, with details provided routinely to POCL via the ICL Pathway web site.

Specific technical questions relating to the performance and scalability of the software distribution product and its method of operation have been answered in a detailed technical presentation.

Specific further commitments have been given concerning the nature of CP2116 and the content of a "substantial software download".

Other lessons learned from the upgrade exercise will be incorporated in the planning of the next software upgrade, expected to be CSR to CSR+ during 2000. POCL will be invited to participate in that exercise (as they were in the LT1 to LT2 exercise), but ICL Pathway cannot currently provide a date for this exercise since it has not yet completed the planning stage. On the basis of the measures already in place, ICL Pathway assesses the incident severity as "Low".

3. Criteria

The Criterion under test is 537/1.

4. POCL position

Based upon the minutes of the Acceptance Board Meeting of 18 August 1999, POCL contended that:

"there is lack of evidence on resolution to enable the current plan to be agreed".

"the plan does not contain clear dates and deliverables".

POCL have also expressed the desire to see a "dress rehearsal" of the next major upgrade exercise using the (to be) developed scripts applied to a "small test estate".

5. ICL Pathway position

5.1 Evidence to enable the plan to be agreed

5.1.1 Report of the upgrade exercise and technical briefing

ICL Pathway has already provided a very full and detailed report on the CSR LT1 to LT2 upgrade exercise. This report includes:

- the full history of the weekend exercise
- a statement of problem areas encountered
- the decisions taken to overcome various problem as they arose
- references to ongoing operating procedures that will be improved
- recommended improvements, that will be incorporated into future system upgrade exercises

POCL has reviewed the report and raised further questions, to which ICL Pathway has also responded. ICL Pathway has also held a detailed technical briefing session for POCL with the ICL Pathway senior systems designer covering the overall system management procedures and products used.

5.1.2 Analysis of the Incident

ICL Pathway has accepted that some aspects of the LT1 to LT2 upgrade identified problems in the systems management process. Three specific issues were identified:

1. The procedure for delivering one element of Reference Data ("Type D" Reference Data) was not properly established, resulting in this Reference Data being missing from some outlets and delaying the upgrade programme whilst in-flight rectification was undertaken
2. The procedure for dealing with "Error Type 221" reports from the Tivoli system management software was incorrectly specified, resulting in operations staff following an unnecessary, but safe, procedure to manually control the software upgrade on a site by site basis, rather than controlling the distribution automatically using the Automated Targeting Engine. This resulted in a somewhat extended time to complete the upgrade compared with the planned time.
3. A specific technical fault was identified within the Automated Targeting Engine, causing long error messages from an outlet being incorrectly handled.

In addition potential improvements were noted to several operational activities during the LT1 to LT2 upgrade exercise and these will be fed into the planning activity for the next software upgrade, although this has not yet reached a formally planned state.

5.2 Clearance plan

The agreed Clearance Plan is based upon:

1. Actions to correct the three specific faults identified above.

These actions have all been completed and details made available to POCL.

2. The provision of additional technical details to POCL in response to comments on the LT1 to LT2 upgrade report, specifically on the use of the Tivoli software and the capabilities of the ATE.

This has been completed in the form of a detailed presentation to POCL staff by the ICL Pathway senior designer responsible for systems management.

3. The provision of ongoing monitoring of the software distribution process, using the ATE, with regular statistics provided on the ICL Pathway web site of software distribution to the live estate (software details, start date, 95%, 99% and 100% complete dates).

This action has been completed with the exception of adding details on the 99% completion date. ICL Pathway offers to provide this within one month. In addition if POCL wish to view the use of the ATE in this situation ICL Pathway has offered to provide this. Systems management capability is an ongoing agenda item at the monthly Service Review Forum meetings where any questions or issues arising from this ongoing monitoring / reporting can be raised for discussion and resolution.

4. The provision for joint input by POCL and ICL Pathway into the next upgrade plan (expected to be CSR to CSR+ during the first half of year 2000), allowing POCL to have assurance that any concerns arising from the last upgrade exercise have been addressed within the plans for the next.

This undertaking has been provided. The dates and details for this exercise are beyond the current planning window but planning is expected to start towards the end of this year or early next year. (Note that each upgrade situation is individually planned according to the volume of software to be distributed, the size of the live estate, the hours of operation of the outlets involved, etc.)

5. Although ICL Pathway believes the above actions are comprehensive, should POCL have residual concerns as to the capability of the systems management service to cope with a substantial upgrade activity, ICL Pathway has also proposed that CSR+ will initially be distributed to an agreed subset of live offices prior to full roll-out. This offers the opportunity to review software distribution capability in a live trial environment prior to commitment to the entire live estate. At the time of writing, this particular exercise lies beyond the current planning window (and hence cannot be assigned a specific date) but would form part of the agreed CSR+ introduction plan.

6. .dll file checking.

ICL Pathway has developed a Systems Management task that checks the structure of .dll files in prescribed system directories for content integrity. This task can be executed on a one shot basis at a particular outlet, or can be

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consolidated with other systems maintenance activities in the regular overnight script (this also reloads the Riposte desktop, for example).

CP 2116 is being implemented to provide this regular overnight capability.

ICL Pathway will continue to run the .dll contents check on potentially affected files within the overnight activities until an agreed closure criterion is achieved. This will be either:

- diagnosis and fix of the underlying corruption problem, or:*
- a substantial software download has occurred followed by a clear period of 3 months running with no detected .dll file corruptions.*

Pathway confirms that .exe and .ocx files are also checked per CP 2116.

7. ATE (Automated Targeting Engine) functioning

The incident that occurred during the LT2 upgrade has been tested and fixed (incorrect handling of long error messages). The fault was recorded and cleared through the OSD fault notification process (PinICL is used for Pathway related incidents). Further details have been supplied by OSD on the nature of the fault and the resolution undertaken:

Messages in the Tivoli Log that exceed 512 bytes caused an error in ATE due to a string size allocated not being long enough. The change required was to terminate the log messages to a maximum of 512 bytes. Testing was performed by simulating a Tivoli log with a message greater than 512 bytes and was implemented with a new release of ATE.

As noted previously the ATE is in regular usage. ICL Pathway continues to demonstrate its usage during normal operational management of the live estate. Consistent with this usage, ICL Pathway will consolidate distributions representative of the LT2 distribution during the next three months live operation. (Representative in this sense is taken to include elements of both Riposte and the Pathway counter applications.)

These distributions will be:

- 1. Riposte Peripheral Server (update #20). The characteristics of this upgrade are that it involves complex interaction between parts of ICL Pathway, and is defined by three Release Notes with detailed interdependencies.*
- 2. Consolidated EPOSS/Counter Applications Upgrade. This is distinguished by its relative size, several Mbs.*

Appropriate supporting documentation will be supplied, including interdependencies, activity logs and statements of how any exceptions were handled.

5.2.1 Clearance plan summary

All important Clearance plan activities have been completed.

Ongoing monitoring of software distribution activities is already provided (with a further minor extension planned) and an appropriate review forum identified for resolution of any matters arising.

The principle of POCL involvement in the planning of such software upgrade exercises is already established and will continue into future exercises such as the CSR+ upgrade. This can include further assurance of software distribution capability within a live trial context.

**ICL
Pathway**

**Acceptance Resolution Plan
Acceptance Incident 376**

Ref: CR/ACD/376
Version: 0.9
Date: 23/9/99

Document Title: Acceptance Resolution Plan for Acceptance Incident 376

Document Type: Acceptance Resolution Plan

Abstract: This document contains ICL Pathway's Resolution Plan in respect of Acceptance Incident 376.

Status: Issued

Distribution: Expert:
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Comments by: 23/9/99

0 Document control

0.1 Document history

Version	Date	Reason
0.1	20/8/98	Initial draft for comments
0.2	24/8/99	Version for Expert and workshop 26/8
0.3	4/9/99	Version for Expert and workshop 6/9
0.4	10/9/99	Version includes an addendum resolving actions from 9/9 workshop. For Expert and workshop 13/9 as Resolution Plan.
0.5	16/9/99	Version documenting final agreed Resolution Plan.
0.6	16/9/99	Further version minor changes, observation period described
0.7	22/9/99	To include agreed closure criteria
0.8	22/9/99	Updates agreed during drafting of Schedule 2 Part A of the second supplementary agreement
0.9	23/9/99	Further updates arising from drafting of Schedule 2 Part A of the second supplementary agreement

0.2 Approval authorities

Name	Position	Signature	Date
J H Bennett	Managing Director		
J C C Dicks	Customer Requirements Director		

0.3 Associated documents

Reference	Vers	Title	Source
		TIP Incident Status Report	Pathway
	0.7	Logical Design for EPOSS/TIP Reconciliation Controls	Pathway
		Ceasing of Non-Core Products at Outlets	Pathway
CS/PRD/065	0.3	Process For Removing Products From Outlets At CSR	Pathway

0.4 Abbreviations

AIS	Application Interface Specification
CSR	Core System Release
CSR+	Core System Release – Plus (the release after CSR)
EPOS	Electronic Point of Sale
EPOSS	EPOS Service
TIP	Transaction Information Processing
TMS	Transaction Management Service
TPS	TIP Processing System – the Pathway host layer for the TIP stream

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1 Purpose

This document sets out ICL Pathway's proposal that Acceptance Incident 376, currently categorised as Medium by Pathway and High by POCL, should be recategorised by POCL as Medium, and that the Resolution Plan is satisfactory and should be agreed.

2 Summary

Pathway contends that there are Clearance Actions that address the three remaining issues defined by POCL.

The issue relates to not passing records to TIP because of harvester exceptions caused by missing functions in counter code. ICL Pathway has taken measures to both stop known occurrences and to ensure that any unforeseen occurrences are reported both to TIP and to ICL Pathway development.

The occurrence of a functionally unrelated incident considered under this Acceptance Incident, the omission of records from the counter cash account, concerned only voucher products. This omission is in process of elimination. In addition procedures have been tightened to minimise the risk of product withdrawals causing operational difficulties at the counter.

Furthermore, additional reconciliation features that confirm the integrity of data passing to TIP have been proposed.

3 Criteria

Criterion 831/1 is cited: "The Contractor shall support interface from TMS and Outlets to Transaction Information Processing (TIP).

4 POCL position

Based upon the minutes of the Acceptance Board Meeting of 18 August 1999, POCL contended that:

"the plan is still immature".

"the proposal not to deliver the additional controls until March 2000 is not acceptable".

"the latest analysis performed on Incident 410 ... has revealed further unresolved deficiencies and the workaround for these is not agreed".

5 Pathway position

5.1 Background

During the Live Trial, and since, incidents have occurred that, in POCL's view, constitute a potential threat to the integrity of their accounts. These are tracked in AI376, *TIP Acceptance Incident Status*, and associated Root Cause Analysis.

5.2 Maturity of plan

The elements of the resolution plan are defined as activities within the integrated Acceptance Resolution Plan (currently version 0.9, 16/9/99).

The Pathway proposal in this area has now been expanded into the High Level Design document *Logical Design for EPOSS/TIP Reconciliation Controls*. The joint working group has reviewed this in detail. This document provides a description of how Pathway will provide additional reconciliation between the Cash Account produced in the outlet and the transactions sent to TIP. It contains detailed proposals for enhancements to counter processing, harvesting and the TPS Host.

5.3 Delivery of additional controls

Clearance action:

The document *Logical Design for EPOSS/TIP Reconciliation Controls*, Version 0.7, 20/9/99 has been agreed and the enhancements will be in service by 31/12/99.

5.3.1 Ongoing Analysis And Review Of Incidents

ICL Pathway will continue to analyse new incidents and will issue periodic updates of the TIP Incident Status Report. This report will be reviewed jointly fortnightly or as required.

ICL Pathway's objective is to eliminate the root causes of such incidents as are described in Section 2 above, while providing a clear method of communicating rare error corrections.

5.3.2 Development Of Additional Reconciliation Controls

Additional controls through the introduction of reconciliation will be developed as described in the document *Logical Design for EPOSS/TIP Reconciliation Controls*.

POCL's requirement to have continued visibility of the functionality of the solution will be met by re-issues of the above-mentioned document. Should low level design affect any area within the high level design, then the Logical Design document will be updated and re-issued to POCL.

Pathway is currently providing Harvester exception reporting and will continue to do so until the additional Reconciliation Controls have entered service.

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Pathway****Acceptance Resolution Plan
Acceptance Incident 376**Ref: CR/ACD/376
Version: 0.9
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POCL is concerned regarding assurance of testing plans and testing activities. ICL Pathway will issue the High Level Test Plans (HLTPs) to POCL for the additional reconciliation controls and will also issue the corresponding Test Reports, both for comment. POCL will provide such comments in a single batch for each of the HLTPs and Test Reports within two weeks of their provision to POCL. In addition, POCL may witness testing. The testing strategy to be adopted for this Plan will be documented and provided to POCL.

5.3.3 Additional Reconciliation Procedures

POCL has observed that joint procedures for dealing with reconciliation incidents need to be developed. ICL Pathway recognises the need for such procedures and will work jointly with POCL to develop them. It is agreed that these procedures will embrace the following five points:

- ✓ 1. POCL will accept manual error corrections of either transaction record errors or cash account stream record errors up to an aggregate level of 50 per week
- ✓ 2. Above this level Pathway will fix errors and (re)submit the data electronically to the TIP interface, unless agreed otherwise by POCL.
- ✓ 3. Manual error reports are to include a full specification of the repaired transaction data, such that the data would pass the integrity checks if resubmitted. Where it is necessary to make a judgement about a repair, such judgement will be declared explicitly by Pathway. Data is to be presented in a suitable format for POCL to key into a POCL data input facility.
4. The delay between the occurrence of an error (or where applicable its later detection) and the notification of the correction to POCL (either manually in accordance with (1) above or electronically in accordance with (2) above) shall not exceed five working days.
- ✓ 5. Pathway is to pay POCL liquidated damages of £100 per transaction error correction submitted manually.

The Contractor shall test the procedure described in sub paragraph (2) above prior to the implementation of the additional reconciliation controls and POCL shall assist and witness the attainment of the outcome.

The above procedures shall be introduced at the same time as the additional reconciliation controls referred to in paragraph 5.3.2 above

5.4 Core to non-core (AI410)

Clearance action:

The document, *Ceasing of Non-Core Products at Outlets*, is agreed and ICL Pathway will implement the defined functions for CSR+.

5.4.1 The position at CSR

Refinement to product management procedures at CSR:

AI 410, although related to AI 376 through the generality of reconciliation of the Cash Account and the TIP stream, is in fact the reverse condition: a record that was not incorporated in the Cash Account was received by TIP.

This condition was caused by ceasing a product at an outlet by changing it from a Core product (transacted at all outlets) to Non-core (transacted at only a subset). This resulted in “end dating” the Item Reference Data at an outlet that had not received replacement non-core reference data but had transacted the product earlier in the week. EPOSS did not include transactions in the Cash Account that had occurred immediately before the product was end-dated at the outlet.

It had been agreed, for CSR, that Operational Business Change procedures would screen out cases of Item Reference Data being end-dated, the outlet would not be able to perform housekeeping functions such as remitting out remaining inventory in any case. The agreed process for removal from sale is by use of changes to the Menu Hierarchy.

Unfortunately neither POCL nor Pathway staff involved had realised that changing a product from Core to Non core would result in just such a cessation. Procedure documentation has now been amended to make this case explicit.

ICL Pathway is introducing a change to ensure that all transactions for end-dated products appear in the cash account. This will provide full accounting integrity.

The parties shall carry out the procedures described in the document *Process For Removing Products From Outlets At CSR*, Version 0.3. These procedures will be revisited if experience so indicates.

Introduction of an enhanced proposal for item transaction modes at CSR+:

A feature, Item Transaction Mode, is scheduled for introduction at CSR+ and will provide a comprehensive means of controlling the classes of transaction that can be applied to products. However, in the course of considering these issues it was further realised that no provision at CSR+ in interfaces and designs had been made for the particular case of end-dating Non-core products in individual outlets.

This issue, ceasing Non-core products at individual outlets at CSR+, has been addressed in the document *Ceasing of Non-Core Products at Outlets*, which was published on 24/8/99, and which POCL has confirmed is acceptable.

6 Closure Criteria

The closure criteria agreed between the parties are:

1. That there will be an Observation Period of six weeks starting 1st October 1999.
2. During the Observation Period there will be no reoccurrence of previously fixed faults

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Pathway**

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3. During the Observation Period not more than 0.6% of Cash Accounts sent to TIP will be found by TIP not to reconcile to the Cash Account derived by TIP from the transaction stream due to Pathway processing error.
4. During the Observation Period Pathway will analyse all new incidents within 10 working days, and report these analyses to TIP using the established TIP Incident Status format. The 10 days starts from the time TIP log the incident on the Pathway helpdesk. The analysis is to include an expected fix implementation date. For incidents that cannot be reproduced the result of analysis may be to implement diagnostic code.
5. There will be a period of parallel running of the Pathway and TIP reconciliation process during which the Pathway solution must find at least all those reconciliation failures correctly reported by TIP.

**ICL
Pathway****Logical Design for EPOSS/TIP
Reconciliation Controls**Ref.: PI/DES/002
Version: 0.7
Date: 20/09/99

Document Title: Logical Design for EPOSS/TIP Reconciliation Controls**Document Type:** Design Specification**Abstract:** This document describes the processes which will be put in place to reconcile that the EPOSS transactions processed at the Counter are passed through to POCL TIP; and that they are accounted for in the weekly cash account statements prepared at the Outlets and in the Cash Account details passed through to POCL TIP**Status:** Draft

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Author: Roger Donato / Steve Warwick / Phil Hemingway**Comments to:** Steve Warwick**Comments by:** 23 September 1999

0 Document Control

0.1 Document History

Version	Date	Reason
0.1	-	First Draft in WORD 95 format (with lost section numbers)
0.2	-	First Draft WORD 97 format as presented to POCL 03/09/99
0.3	10/09/99	Application of feedback from version 0.2 Absolute values change to Actuals in Daily Cash Account Control Totals Inclusion of brought forward totals in Reconciliation Addition of transaction errors detected by Counters
0.4	14/09/99	Same as version 0.3
0.5	16/09/99	Scope Section added Handling of failure scenarios added Specification of Changes to Counters in the Detailed Design Corrections / Changes arising from V0.3 feedback Data item Transaction Date removed from report of Host Detected Transaction Control Errors CA Table “”XX” for error totals
0.6	17/09/99	Data Flow diagrams added
0.7	20/09/99	Comments added following review by TDA and Acceptance Workshop at Gavrelle House on 17/09/99

0.2 Associated/ Documents

	Reference	Ver sion	Date	Title	Source
1	TI/IFS/001 PCSTIPIS	5.7	05/07/99	Pathway to TIP AIS	POCL
2	TD/DES/118	0.1	16/09/99	EOD Harvest Trailer Generation HLD	Pathway

0.3 Abbreviations

CA	Cash Account
CAP	Cash Account Period
EPOSS	Electronic Point of Sale System
OPS	Outlet Processing System
POCL	Post Office Counters Limited
TIP	Transaction Information Processing
TPS	Transaction Processing Service

0.4 Standard Terms

CA Table Number	The number of the table as it appears on the Cash Account: e.g. table 00 contains Receipts, table 10 contains Payments
Trading Date	Trading Date is the period of time between consecutive public end of day markers in message store. Normal end of day is Outlet closing time (as specified in Reference Data) plus half an hour or 19:00 hours whichever is the earlier. Where an outlet has end of day at 19:00 then a Trading Date of 07/12/99 covers the period of time between 19:00 hours 06/12/99 to 19:00 hours 07/12/99. It should be noted that where an outlet has differing closing times on consecutive days, the 'Trading Day' may represent more or less than a 24-hour period.

0.5 Changes Forecast

Report Layouts to be modified in line with Low Level Design.
Other corrections and comments as necessary.

0.6 Approval authorities

To be defined

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1 Scope

This document describes the processes to be introduced to the POCL Infrastructure products to reconcile the transaction details and cash account details passed to POCL TIP against the details captured at the counters.

The level of detail given is adequate to enable POCL to ascertain that the solution will deliver the business requirement, which is to report all incidents in which either transactions recorded at the counter are not both sent to TIP and brought to account in the outlet Cash Account, or that the outlet cash account is not correctly transmitted to TIP.

This document is the principle vehicle for communicating the reconciliation design to POCL and will be re-issued as necessary.

2 Introduction

This document describes the processes that will be put in place to ensure that:

- ◆ The accounting transaction data recorded by the EPOSS system on the OPS can be reconciled with the accounting transaction data returned to the POCL TIP system across the TIP interface
- ◆ The accounting transaction data written each day at the OPS can be reconciled with the Cash Account data written at the OPS when the Cash Account is produced
- ◆ The Outlet Stock Holdings generated at the end of a Cash Account Period at the OPS can be reconciled with the Outlet Stock Holdings transferred to TIP across the TIP Interface
- ◆ The Cash Account Line records generated at the OPS can be reconciled with the Cash Account Line records returned to TIP across the TIP Interface

The processes to be put in place will be delivered through the implementation of new software functionality at both the OPS and TPS Host systems. Where a new OPS function is delivered to generate control totals, the function will be designed to calculate the totals by a means different to that used in the current OPS functionality which generates balancing and Cash Account data. This approach is being taken to ensure that if the same total is calculated by two separate logical processes then there can be a high level of assurance in the integrity of the data.

3 Overview

The reconciliation processes will be split into two separate sets of activity, Daily reconciliation tasks and Weekly (or more accurately at the end of each CAP) reconciliation tasks.

The daily tasks will ensure that the base transaction data recorded at the counter matches the base transaction data transferred to TIP for that day. At the same time, the transactions will be used to generate control totals for the Cash Account tables to which the transaction will report at the end of the CAP.

At the end of the CAP, the daily control totals generated for each Cash Account table will be accumulated and the resulting value calculated for the Payments and Receipt tables will be compared with the Cash Account line records generated by the Cash Account production process. If there is a discrepancy in this comparison then the system will validate each of the accumulated daily control totals with the corresponding Cash Account line records to identify the table which does not reconcile and record an error message in the Riposte message store.

The existing functions in the system which create the outlet stock holding records and the Cash Account Line records will also be amended to accumulate a control total for each set of records which will be written into the message store at the end of each set. These control total records will be harvested and inserted into the TPS Host database. The TPS Host system will compare the Stock Holding records ('STX' records) and the Cash Account Line records ('CAC' records) output to the TIP Cash Account sub-file with the control totals received from the OPS system. In the event that the TPS harvester fails to locate either the Stock Holding records ('STX' records) or the Cash Account Line records ('CAC' records) or the control totals calculated by the TPS Host system differ from the control totals received from the OPS, then a reconciliation error report will be produced.

3.1 Daily Transaction Control Totals

At the end of each logical day (Trading Day) an End of Day process runs to insert a marker into the Riposte Message store. This marker records the precise point in the message store (for each node in the group) at which the End Of Day process ran. The marker is used by the TPS Harvester process to delineate the transactions which will be extracted from the message store and sent, via the TPS Host System, to the POCL TIP system across the TIP Interface.

The End of Day process will be extended to include an additional set of functions to:

- ◆ Calculate control totals of all accounting transactions recorded since the last End of Day marker. The control total will be made up of just those transactions which get passed through to TIP: (thus "transfers" and "remittance settlements" will not be included since they are not passed to TIP. The full list of transaction types not passed to TIP are listed in section 4.2.1). The control total will include the following fields/attributes:
 1. Trading Date (Date of current EOD Marker)
 2. Total number of transactions
 3. Total of absolute value of transaction 'Quantity' field
 4. Total of absolute value of transaction 'SaleValue' field

The control totals written by the OPS system will be harvested by the TPS Harvester (or another specific Harvester process) and will be inserted into a new table within the TPS Host Database. When the TPS Host system creates the TIP sub-file for an outlet a new process will be added that independently calculates the control totals from the records being generated in the sub-file and then compares them with the control totals harvested from the OPS. If there is a discrepancy between the TPS and OPS generated control totals, the following information will be written to an Exception Report:

1. Outlet FAD code
2. The values calculated by the OPS
3. The values calculated by the TPS Host

3.2 Daily Cash Account Control Totals

At the same time that accounting transactions are read for the creation of the daily transaction control totals (see 3.1 above), a further new function within the End of Day process will cause the value of the transaction to be accumulated in an appropriate control total(s) to facilitate reconciliation of the Cash Account at the end of the Cash Account Period. This process will determine, for each transaction processed, which Cash Account period is appropriate to the transaction (there may be transactions for more than one CAP on any given day) and to which Cash Account Table(s) control total the transaction is relevant. The determination of which Cash Account Table control total is relevant will be based on the 'Transaction Mode' and 'Product Number' contained in the transaction message that will then be used to access the appropriate Cash Account Mapping reference data to determine the table number to which the transaction relates. The control total record will include:

1. CAP Number
2. CA Table Number
3. Total number of transactions
4. Total of signed value of transaction 'Qty' or 'SaleValue' field (only one of these attributes is present in each CA Line message).

Use of the Transaction Mode, Product Number and Cash Account Mapping data to determine the appropriate CA Table control total will ensure that the total is derived by a separate logical process from that used during the production of the Cash Account itself. Cash Account production relies on the use of product 'Primary Mappings' and 'Secondary Mappings' to aggregate transactions at the stock unit and office levels before the Cash Account mappings are used to generate the final Cash Account values.

If any transactions are found which are not possible to map to a CA Table, their details are added together and included in a Control Total for CA Table Number "XX". These are exceptions. The corresponding error transactions will be flagged in message store from where they will be harvested as Counter detected errors. Harvested errors will be written to an Exception Report for action via the normal RED processes. The report will contain:

1. Outlet FAD code
2. The unique message number of the failed transaction
3. The Mode in which the transaction took place
4. The stock unit in which the transaction took place
5. The product number of the failed transaction
6. The Sale Value of the failed transaction
7. The reason that the transaction failed to be mapped

3.3 Weekly Cash Account Control Totals

At the time that the Cash Account 'Trial Report' is produced the OPS system creates a set of 'Cash Account Line' records (which reflect the line by line content of the hard-copy print of the Cash Account).

For each set of records produced, an additional message will be written which contains control totals. The control totals will include the following fields:

1. CAP Number
2. Total absolute number of transactions
3. Total of absolute value of transaction 'Qty' or 'SaleValue' field (only one of these is present in each message, separate totals will be maintained for 'Qty' and 'SaleValue')

At the time that the Office is 'rolled over' in to the next CAP, the 'Final Cash Account Report' is produced and the OPS system creates a set of 'Office Stock Holding' records (which reflect the accumulation of the stock unit holdings at the end of the CAP).

For each set of records produced, an additional message will be written which contains control totals. The control totals will include the following fields:

1. CAP Number
2. Total absolute number of transactions
3. Total absolute value of transaction 'Quantity' field
4. Total of absolute value of transaction 'SaleValue' field

The Stock Holding and Cash Account Line Control Total records will be harvested at the same time as the Stock Holding and Cash Account transactions are harvested and will be written to a new table in the TPS Host System database. When the TPS Host system creates the TIP Cash Account sub-file for an outlet a new process will be added that independently calculates the control totals from the records being generated in the sub-file and then compares them with the control totals harvested from the OPS. If there is a discrepancy between the TPS and OPS generated control totals, the following information will be written to an Exception Report:

1. Outlet FAD code
2. CAP Number
2. The values calculated by the OPS
3. The values calculated by the TPS Host

3.4 Weekly Cash Account Control Total Reconciliation

The end of day procedure which follows the Cash Account Period Rollover will retrieve the Daily Cash Account Reconciliation Control Totals (see 3.2 above) for the current Office CAP (including any that took place on the day of the CAP rollover). These totals will be accumulated to derive a single total for each Cash Account Table and totals of appropriate tables (such as the Remittance tables and the balance brought forward for the Receipts table) will be added to the Stock, Payments and Receipt table control totals. The values generated for the control total of each of the tables will then be compared with the values generated for the lines recorded for the table during the production of the Cash Account. Any difference will be identified in a message written to the message store.

Any error messages will be subsequently harvested and inserted into a new table in the TPS Host Database. Errors will be output to an error report.

NOTES

1. The reconciliation process will work for normal and extended cash accounts. Extended CAPs are the same as a normal CAP except that CAP Number increases by more than 1 and the period covered is more than 7 days
2. The reconciliation process will be unaffected by days when the Outlet is not trading because processing is covered by resilience already built into the end of day process.

4 Detailed Design Proposal

4.1 Changes to Message Store

The following new messages will be written by the Counters to support the Reconciliation process:

- ◆ Daily Transaction Control Totals
- ◆ Daily Cash Account Control Totals
- ◆ Transaction Errors Detected by Counters
- ◆ Weekly Cash Account and Stock Holding Control Totals
- ◆ Cash Account Reconciliation Errors

4.1.1 Daily Transaction Control Totals

This message will be written by the normal end of day procedure and will contain control totals that will be harvested and used in the TPS Host to check that the transactions passed through to TIP reconcile against the totals generated at the outlet. The message will contain the following attributes:

<GroupId:ffffff>	FAD Code
<Id:nn>	Node
<Num:mmmmmmmmmm>	Message number
<Date:dd-mmm-ccyy>	Date of message
<Time:hh:mm:ss>	Time of message
<Expiry:nnn>	Retention period in days
<EPOSSTransaction:	Group attribute for EPOSS Transactions
<TranType:DailyTxnCT>	Transaction Type for Daily Control Totals
<TradingDate:dd-mmm-ccyy>	Date of EOD Marker
<MessageCount:nnnnnnnnn>	Number of transaction messages
<QtyCount:nnnnnnnnn>	Total of absolute value of Transaction Quantity field
<ValueCount:nnnnnnnnn.nn>	Total of absolute value of Transaction 'SaleValue' field
>	

4.1.2 Daily Cash Account Control Totals

This message will be written by the normal end of day procedure and will contain control totals for each Cash Account Table. The totals will be added together at the end of the Cash Account Period and used to reconcile against the details on the Cash Account. The message will contain the following attributes:

<GroupId:ffffff>	FAD Code
<Id:nn>	Node
<Num:mmmmmmmmmm>	Message number
<Date:dd-mmm-ccyy>	Date of message
<Time:hh:mm:ss>	Time of message

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<Expiry:nnn>	Retention period in days
<EPOSSTransaction:	Group attribute for EPOSS Transactions
<TranType:DailyCACT >	Transaction Type for Daily Cash Account Control Totals
<CAP:cc>	Cash Account Period
<CAtable:tt>	Cash Account Table No
<MessageCount:nnnnnnnn>	Number of transaction messages
<QtyCount:nnnnnnnn>	Total of absolute value of Transaction Quantity field
<ValueCount:nnnnnnnn.nn>	Total of absolute value of Transaction 'SaleValue' field
>	

- Note: 1. Where a product reports to both a quantity and a value table on the cash account the quantity and value in the transaction record will be accumulated separately into the respective Cash Account Table.
2. Although the above structure contains both quantity and value counts the majority of Cash Account Tables have only one or the other value (the exception being Table 12). On Quantity-only tables the control total for value will be zero. On Value-only tables the control total for quantity will be zero.

CATable "XX" will be a special table set up to hold control totals for exception transactions that do not map against a valid CA Table entry.

4.1.3 Transaction Errors Detected by Counters

This message will be output where the counter is unable to analyse the transaction in message store. A new message is output containing the following attributes:

<GroupId:ffffff>	FAD Code
<Id:nn>	Node
<Num:nnnnnnnnnn>	Message number
<Date:dd-mmm-ccyy>	Date of message
<Time:hh:mm:ss>	Time of message
<Expiry:nnn>	Retention period in days
<EPOSSTransaction:	Group attribute for EPOSS Transactions
<TranType:DailyCAErr >	Transaction Type for Daily Cash Account Control Total Errors
<TxnId:	Transaction in error – formatted as GroupId / Id / Num

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<Group:ffffff> Group Id (FAD Code)
<Id:nn> Node Id
<Num:xxxxxxxxxx> Message Number
>
<Reason:tttttt> Reason for rejection (e.g. <Reason:No
CA Mapping>)
>

4.1.4 Weekly Cash Account Control Totals

This message will be written when the Cash Account is produced and will contain control totals that will be harvested and used in the TPS Host to check that the cash account details and stock details passed through to TIP reconcile against the totals generated at the outlet. The message will contain the following attributes:

<GroupId:ffffff> FAD Code
<Id:nn> Node
<Num:xxxxxxxxxx> Message number
<Date:dd-mmm-ccyy> Date of message
<Time:hh:mm:ss> Time of message
<Expiry:nnn> Retention period in days
<EPOSSTransaction: Group attribute for EPOSS Transactions
<TranType:WeeklyttCT > Transaction Type for Weekly Cash
Account (tt=CA)/Stock Holding (tt=SH)
Control Totals
<CAP:cc> Cash Account Period
<MessageCount:nnnnnnnn> Number of CA Line/Stock Holding
messages
<QtyCount:nnnnnnnn> Total of absolute value of Transaction
Quantity field
<ValueCount:nnnnnnnn.nn> Total of absolute value of Transaction
'SaleValue' field
>

4.1.5 Cash Account Reconciliation Errors

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This message is output where the end of day procedure following the Cash Account finds that the sum of the Daily Cash Account Control Totals (see section 4.1.2) captured during the Cash Account Period does not agree with the totals on the Cash Account. A message will be written where there is an error in the totals for a CA table.

The message will contain the following attributes:

<GroupId:ffffff>	FAD Code
<Id:nn>	Node
<Num:mmmmmmmmmm>	Message number
<Date:dd-mmm-ccyy>	Date of message
<Time:hh:mm:ss>	Time of message
<Expiry:nnn>	Retention period in days
<EPOSSTransaction:	Group attribute for EPOSS Transactions
<TranType:WeeklyCAErr >	Transaction Type for Weekly Cash Account Errors
<CAP:cc>	Cash Account Period
<CATable:tt>	Cash Account Table No
<CAQtyTot:nnnnnn>	Total of signed values of the Quantity field accumulated from the Cash Account Line records
<CAValueTot:nnnnnn.nn>	Total of signed values of the Sale Value field accumulated from the Cash Account Line records
<ControlQtyTot:nnnnnn>	Total of signed values of the Quantity field accumulated from the Daily Cash Account Control Total records
<ControlValueTot:nnnnnn.nn>	Total of signed values of the Sale Value field accumulated from the Daily Cash Account Control Total records
>	

CATab "XX" will be a special table set up to hold control totals for exception transactions that do not map against a valid CA Table entry. If a message is written for <CATable:XX>, <CAQtyTot:> and <CAValueTot:> will be null, but <ControlQtyTot:> and <ControlValueTot:> will contain values.

4.2 Changes to Counters**4.2.1 End of Day Architecture**

In order to ensure that the record set on which the Daily Control Totals are calculated is fixed at a point in time, the processes for calculating the totals will need to run AFTER the EOD Marker has been inserted into the message store (since this delineates the messages for the day). The calculation of the totals will therefore be carried out within the EOD process using the architecture developed for CSR+ for the creation and management of 'Harvest Trailers' (see Ref. 2). This will result in the Control Total messages being written after the EOD Marker but before the EOD Harvest Trailer message. The resilience of the process remains unchanged since the EOD process itself will continue to ensure that if the process is interrupted for any reason, then the generation of the Control Totals and the Harvest Trailer will be carried out when the system is re-started.

4.2.2 Normal End of Day Processing

The end of day procedure will be extended to scan message store to calculate control totals and write messages for:

- ◆ Daily Transaction Control Totals (see section 4.1.1), making sure that absolute values and quantities are used. These totals will be subsequently harvested and used by TPS Host to reconcile against the number transactions passed through to TIP. Some transactions are not passed through to TIP so these will not be included in the control totals: the following transactions will not be included:
 - Transfers
 - Transfer settlements
 - Remittance settlements
 - Non accounting data settlements
 - Parcel traffic settlements

The identification of the products to be excluded in this way will be controlled by the use of a piece of reference data (persistent object) in the message store.

- ◆ Daily Cash Account Control Totals (see section 4.1.2), making sure that signed values and quantities are used. These totals will subsequently be used by the counter software to reconcile the Cash Account. Totals will be written for the following CA Tables
 - 00 Receipts (Values)
 - 10 Payments (Values)
 - 07 Discrepancies (Values)
 - 20 Cash Stock and Vouchers in Hand (Table 5) (Values)
 - 30 Receipts (Quantities)
 - 40 Payments (Quantities)
 - 50 Stock in Hand Breakdown (Table 5b) and Suspense Account Tables (Values)
 - 60 Remittances from other Offices (Values)

- 61 Receipt of stock from SSO (Values)
- 70 Stock Returns to SSO (Values)
- 80 Remittances to other Offices (Values)
- 90 Girobank Transaction Breakdown (Table 10f) and Parcel Traffic (Table 12) (Values and Quantities)
- 91 Number of Transactions (Table 10g) (Quantities)

A new message will be written to message store (before the EOD Harvest Trailer) for any transaction that is found to be in error (see section 4.1.3).

Totals for error transactions are added together and included in a special Daily Cash Account Control total for CA Table "XX".

4.2.3 Cash Account Processing

When the Cash Account 'Trial Report' is produced the processing will be extended to calculate control totals and write a message for:

- ◆ Weekly Cash Account Control Total (see section 4.1.4), making sure that signed values and quantities are used. This total will be subsequently harvested and used by TPS Host to reconcile against the number of cash account lines passed through to TIP.

When the Cash Account 'Roll-Over' is executed the processing will be extended to calculate control totals for the outlet stock holdings and write a message for:

- ◆ Weekly Outlet Stock Holding Control Total (see section 4.1.4), making sure that signed values and quantities are used. This total will be subsequently harvested and used by TPS Host to reconcile against the number of stock holding records passed through to TIP.

4.2.4 End of Day Processing Following Cash Account

The end of day procedure will be extended as described in Section 3.4 to retrieve the Daily Cash Account Reconciliation Control Totals (see section 4.1.2). The total for each table on each day will be accumulated to give a single total for each table for the Cash Account Period. The system will then perform the following additional calculations:

1. The totals of Table 5(b), 2 and 2(a) will be added to the control total for Table 5;
2. The total of Table 3 will be deducted from the control total for Table 5;
3. The Table 5 Control Total from 1&2 above will be added to the Control Total of the Payments Table (Table 10);
4. The Control Total of the Discrepancy Table (Table 07) will be added to the Control Total of the Payments Table (Table 10);
5. The Control Total for Tables 6 and 6(a) will be added to the Control Total of the Receipts Table (Table 00);

6. The Balance Brought Forward value for the Current CAP will be added to the control total of the Receipts Table (Table 00);
7. The Control Total of Tables 8 and 9 will be added to the Control Total of the Payments Table (Table 10).

These values will then be compared against each Cash Account Table total accumulated from the Cash Account line records written during the production of the Cash Account.

An error message will be written (see 4.1.5) when the total for any table does not match the Control Total against which it is being compared.

4.3 Changes to the Oracle Database

The following tables will be added to the database which is populated by the Harvester and processed by TPS Host:

- ◆ Daily Transaction Totals
- ◆ Cash Account Total Lines
- ◆ Stock Detail Total Lines
- ◆ Exception Transaction
- ◆ Control Exceptions

4.3.1 Daily Transaction Totals

This is a table of control totals which will be populated nightly by the harvester from the Transaction Stream Control Total message. It will contain the following data items:

- ◆ FAD Code
- ◆ Trading Date
- ◆ Total Number of Transactions
- ◆ Total of absolute value of transaction "Quantity" field
- ◆ Total of absolute value of transaction "Sale Value" field

4.3.2 Cash Account Total Lines

This is a table of control totals which will be populated by the harvester from the weekly CA Stream Control Total message. It will contain the following data items:

- ◆ FAD Code
- ◆ CAP Number
- ◆ Total Number of lines
- ◆ Total of absolute value of transaction "Qty" field
- ◆ Total of absolute value of transaction "Sale Value" field

4.3.3 Stock Detail Total Lines

This is a table of control totals which will be populated by the harvester from the weekly Office Stock Holding Control Total message. It will contain the following data items:

- ◆ FAD Code
- ◆ CAP Number
- ◆ Total Number of messages
- ◆ Total of absolute value of transaction “Quantity” field
- ◆ Total of absolute value of transaction “Sale Value” field

4.3.4 Exception Messages

This table will be used to hold details of messages where exception conditions have been detected by the Counters and/or the Harvester. For example:

- ◆ End of Day process may not be able to map a particular transaction into one of the CA tables (see section 4.1.3)
- ◆ The Harvester is unable to convert a particular data item because the content in Message Store is not compatible with its definition in the Oracle database

The table will contain the following data items:

- ◆ FAD Code
- ◆ Transaction Date
- ◆ Transaction Time
- ◆ Transaction Identifier
- ◆ Reason for rejection

4.3.5 Control Exceptions

This table will be used to hold details where the Cash Account Totals calculated by the Counters do not correspond to the Control Totals captured by the Counters from the transactions processed during the Cash Account Period. It will contain the following data items:

- ◆ FAD Code
- ◆ CAP Number
- ◆ CA Table Number
- ◆ Accumulated signed total of ‘Qty’ values from Cash Account Line Records
- ◆ Accumulated signed total of ‘Sale Value’ values from Cash Account Line Records
- ◆ Accumulated signed total of ‘Qty’ values from Daily Cash Account Control Totals
- ◆ Accumulated signed total of ‘Sale Value’ values from Daily Cash Account Control Totals

CA Table Number “XX” will be a special table set up to hold control totals for exception transactions that do not map against a valid CA Table entry: Cash Account attribute entries will be null, but Control Total entries will contain values.

4.4 Changes to TPS Agent

The Harvester will populate the new tables in the Oracle database: there may be several entries for each FAD code.

4.4.1 Daily Processing

For each outlet that is harvested TPS Agent will process the Transaction Stream Control Totals from message store and will populate the Daily Transactions Totals table in the Oracle database.

Any transaction which it cannot harvest (because of invalid data) will be written to the Exception Messages table (see section 4.3.4).

Any Transaction Error detected by the counter (see section 4.1.3) will also be written to the Exception Messages table (see section 4.3.4).

4.4.2 Processing of Cash Account Data

For each outlet that is harvested TPS Agent will:

- ◆ process Weekly Cash Account Stream Control Total(s) from message store to populate the Cash Account Total Lines table in the Oracle database
- ◆ process Office Stock Holding Control Total(s) from message store to populate the Stock Detail Total Lines table in the Oracle database

Any line which it cannot harvest (because of invalid data) will be written to the Exception Messages table (see section 4.3.4).

Any reconciliation error detected by the Counters (see 3.4 above) will be written to the Control Exceptions table.

4.5 Changes to TPS Host

4.5.1 Daily Processing

For each outlet, TPS Host will

- ◆ Add up number of EPOSS transactions which have been harvested
- ◆ Add up absolute value of transaction quantity field in the harvested transactions
- ◆ Add up absolute value of transaction sale value field in the harvested transactions
- ◆ Compare calculated totals against the control totals in the Daily Transaction Totals total

- ◆ Output an exception report for those outlets which don't balance containing both sets of totals for each outlet (see 4.6.1 below)
- ◆ Output an exception report of exception transactions reported by the Harvester (see 4.6.2 below)

NOTES:

1. For control purposes a reversal will be treated in the same way as the transaction being reversed. E.g. if the original transaction was for quantity 6 at a sales value of £1.20, then the combination of the reversed and reversal transactions would increment the number of transactions by 2, transaction quantity by 12, and sales value by £2.40.
2. "Event" transactions will be ignored from the totals

4.5.2 Processing of CAP Stream Control Totals

For each outlet, TPS Host will

- ◆ Add up number cash account lines which have been harvested
- ◆ Add up absolute value of cash account line
- ◆ Compare calculated totals against Weekly CAP Stream Control Totals
- ◆ Output an exception report for those outlets which the Host detects as not balancing (see 4.6.3 below)
- ◆ Output an exception report for those outlets which Counter has reported as not balancing (see 4.6.4 below)
- ◆ Output an exception report of exception cash account lines reported by the Harvester (see 4.6.2)

4.5.3 Processing of Office Stock Holding Control Totals

For each outlet, TPS Host will

- ◆ Add up number of stock detail lines
- ◆ Add up absolute quantity of stock detail lines
- ◆ Add up absolute value of stock detail lines
- ◆ Compare calculated totals against Weekly Office Stock Holding Control Totals
- ◆ Output an exception report for those outlets which the Host detects as not balancing (see 4.6.3 below)
- ◆ Output an exception report of exception stock detail lines reported by the Harvester (see 4.6.2)

4.6 Exception Reports

The following reports will be produced by the TPS Host:

- ◆ Host Detected Transaction Control Errors

- ◆ Harvester Detected Errors
- ◆ Host Detected Cash Account Control Errors
- ◆ Counter Detected Reconciliation Errors

All these reports will be routed to the Business Support Unit within ICL Pathway who will investigate each error. Any lost / missing transactions will be communicated to POCL.

4.6.1 Host Detected Transaction Control Errors

This report is produced daily showing details for any outlet where the control totals for the transactions output by the Host to POCL TIP do not match the Daily Transaction Totals calculated by the Counters. The following data is reported for each exception:

- ◆ FAD Code
- ◆ Trading Date
- ◆ Control Totals calculated by Host
- ◆ Control Totals calculated by Counter

An “END OF REPORT” message will appear at end of the report even if there are no errors reported.

4.6.2 Message Store Errors

This report is produced to list exception conditions detected by the Harvester and/or Counter when failing to process one of the messages in message store. The following data is reported for each exception:

- ◆ FAD Code
- ◆ Trading Date
- ◆ Transaction Time
- ◆ Content of message
- ◆ Reason for Rejection

An “END OF REPORT” message will appear at end of the report even if there are no errors reported.

4.6.3 Host Detected Cash Account Control Errors

This report is produced daily showing details for any outlet where the Control totals for the number of entries on the Cash Account output by the Host to POCL TIP do not match the Control Totals calculated by the Counters.

The following data is reported for each exception:

- ◆ FAD Code

- ◆ Trading Date
- ◆ Cash Account Period
- ◆ Absolute Control Totals for Cash Account Lines calculated by Host
- ◆ Absolute Control Totals for Cash Account Lines calculated by Counter
- ◆ Absolute Control Totals for Stock Detail Lines calculated by Host
- ◆ Absolute Control Totals for Stock Detail Lines calculated by Counter

An “END OF REPORT” message will appear at end of the report even if there are no errors reported.

4.6.4 Counter Detected Reconciliation Errors

This report is produced daily showing details for any outlet where the accumulated Daily Transaction Control totals for the cash account period do not match the totals on the Cash Account produced by the Counters.

The following data is reported for each exception:

- ◆ FAD Code
- ◆ Trading Date
- ◆ Cash Account Period
- ◆ Cash Account Table Number
- ◆ Cash Account Details calculated by Counter
- ◆ Control Totals for Cash Account calculated by Counter

CA Table Number “XX” will be used to report control totals for exception transactions that do not map against a valid CA Table entry.

An “END OF REPORT” message will appear at end of the report even if there are no errors reported.

5 Data Flow Diagrams

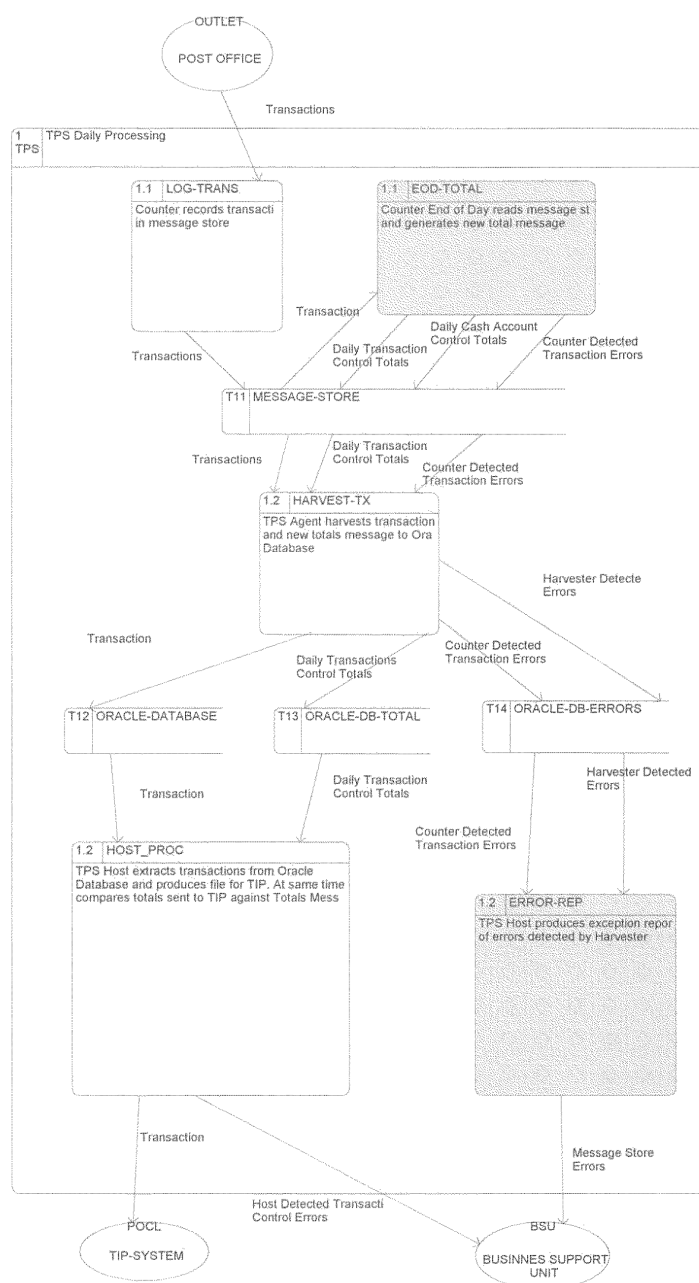
5.1 Daily Processing

The following diagram illustrates the data flow of the daily reconciliation processing:

- ◆ Counter End of Day will process the transactions in Message Store and generate additional messages for Daily Transaction Control Totals and Daily Cash Account Control Totals
- ◆ A message will also be written to Message Store for any transaction which cannot be mapped into one of the cash account tables in the Daily Cash Account Control Totals
- ◆ The Daily Transaction Control Totals will be harvested and passed through to TPS Host where they will be compared against the transactions output to TIP. Any discrepancy will be reported as Host Detected Transaction Control Errors
- ◆ Any transactions which cannot be extracted by the Harvester will be posted to an error table in the host database. This will also contain Counter Detected Transaction Errors. This table will be processed by the host and they be reported as Message Store errors.

Logical Design for EPOSS/TIP Reconciliation Controls

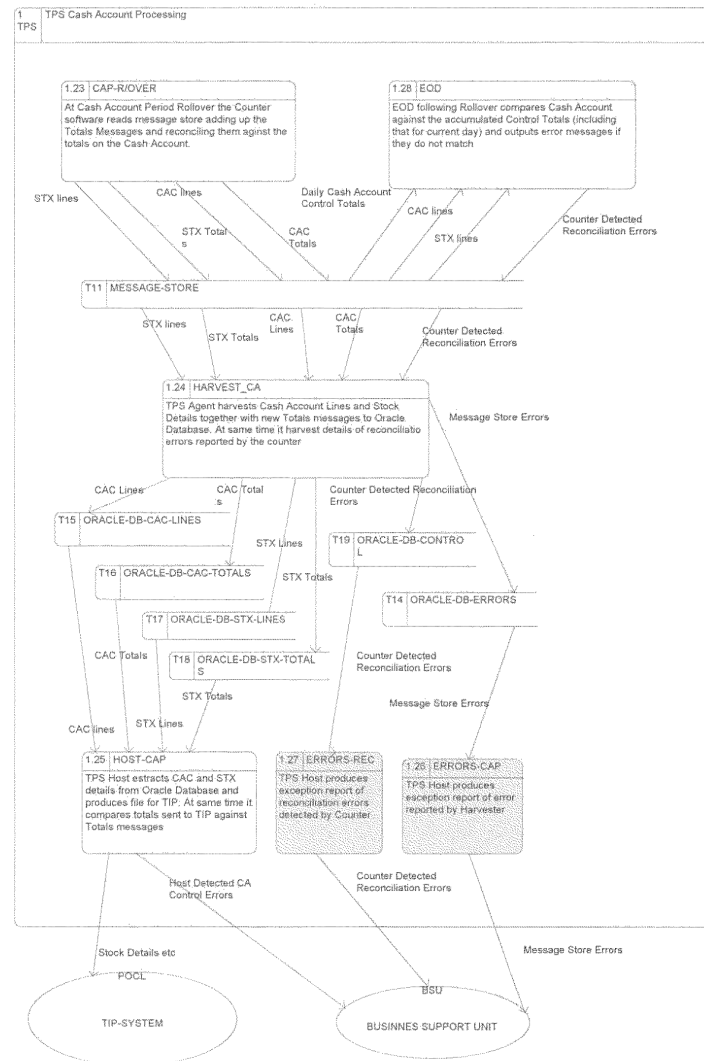
Ref.: PI/DES/002
Version: 0.7
Date: 20/09/99



5.2 Cash Account Processing

The following diagram illustrates the data flow at the time of Cash Account Period rollover

- ◆ The Counters will generate additional control messages representing the Cash Account Lines and Stock Details
- ◆ Counter End of Day will compare the Cash Account against the accumulated totals for the Daily Cash Account Control Totals. Any reconciliation errors are reported to Message Store
- ◆ Counter Detected Reconciliation Errors will be harvested and passed through to the TPS Host where they will be reported
- ◆ The Control Messages for the Cash Account Lines and Stock Details will be harvested and passed through to TPS Host where they will be compared against the Cash Account Details output to TIP. Any discrepancy will be reported as Host Detected Cash Account Control Errors
- ◆ Any Cash Account Line or Stock Details Line which cannot be extracted by the Harvester will also be posted to an error table in the host database. This table will be processed by the host and they will be reported as Message Store errors.

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PathwayLogical Design for EPOSS/TIP
Reconciliation ControlsRef.: PI/DES/002
Version: 0.7
Date: 20/09/99

The report details lines will be in the following sort sequence:-

Ascending Outlet / Trading date / Transaction Date / Transaction Time

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Ref: PI/DES/002
Version: 0.6
Date: 17/09/99

6.3 Host Detected Cash Account Control Errors

[illegible]

RUN DATE / TIME: dd/mm/yyyy hh:mm:ss PAGE NO: ZZZZ9

PROGRAM: NNNN

Host Detected Cash Account Control Errors

Outlet	Trading Date	CAP Number		Number	Absolute Quantity	Absolute Value
xxxxxx	dd/mm/yyyy	xx	CAC Lines - TPS Total	xxxxxxxx		xxxxxxxxxx
			CAC Lines - Counter Total	xxxxxxxx		xxxxxxxxxx
			STX Lines - TPS Total	xxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
			STX Lines - Counter Total	xxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
xxxxxx	dd/mm/yyyy	xx	CAC Lines - TPS Total	xxxxxxxx		xxxxxxxxxx
			CAC Lines - Counter Total	xxxxxxxx		xxxxxxxxxx
			STX Lines - TPS Total	xxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
			STX Lines - Counter Total	xxxxxxxx	xxxxxxxxxx	xxxxxxxxxx

*** END OF REPORT ***

Notes

The report details lines will be in the following sort sequence:-

Ascending Outlet / Trading date / Transaction Date

6.4 Counter Detected Reconciliation Errors

0 0 0 0 0 0 0 0 0 1 1 1 1
1 2 3 4 5 6 7 8 9 0 1 2 3
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012

TPS RECONCILIATION REPORTS RUN DATE / TIME: dd/mm/yyyy hh:mm:ss PAGE NO: ZZZZ9
PROGRAM: NNNN

Counter Detected Reconciliation Errors

Outlet	Trading Date	CAP Number	CAP Table		Number	Signed Value Total
xxxxxx	dd/mm/yyyy	xx	xx	Cash Account	xxxxxxx	xxxxxxxxx
				Control	xxxxxxx	xxxxxxxxx
xxxxxx	dd/mm/yyyy	xx	xx	Cash Account	xxxxxxx	xxxxxxxxx
				Control	xxxxxxx	xxxxxxxxx

*** END OF REPORT ***

Notes

The report details lines will be in the following sort sequence:-
Ascending Outlet / Trading date / Transaction Date

6. Failure Scenarios

This section describes how the Reconciliation Process will function under various failure scenarios.

Failure Condition	Scenario when failure occurs prior to Initiation of Process	Scenario when failure occurs during the Execution of Process	Scenario when failure occurs for protracted period
1. End of Day – Non gateway node failure Note that the most common scenario for this is the Postmaster turning off the power to an unused counter PC.	End of Day will run in the nodes which are running:: ◆ Private end of day markers will be written for each live node ◆ No public end of day markers are written ◆ No Daily Transaction Control Totals written ◆ No Daily Cash Account Control Totals written ◆ No CA Reconciliation is carried out if it is a Cash Account day ◆ No transactions are harvested ◆ No transaction details are output to TIP. If the node is restored before midnight (local time) EOD will run as normal for that day. It may be that such “late EODs” will not be harvested until the next day since the EODs may miss the 20:30 TPS harvester cut-off time. (See also 4 – Wan failures) If node is restored after midnight EOD will run on the day it is restored at the normal	If a non –gateway node fails whilst EOD is running then EOD fails to complete and ◆ No private end of day markers will be written for node that dies ◆ No public end of day markers are written ◆ No Daily Transaction Control Totals written ◆ No Daily Cash Account Control Totals written ◆ No CA Reconciliation is carried out if it is a Cash Account day ◆ No transactions are harvested ◆ No transaction details are output to TIP. If the node is restored before midnight (local time) EOD will run as normal for that day. It may be that such “late EODs” will not be harvested until the next day since the EODs may miss the 20:30 TPS harvester cut-off time. (See also 4 – Wan failures) If node is restored after midnight EOD will run on the day it is restored at the normal	Whilst node is down: ◆ No private end of day markers will be written for dead node ◆ No public end of day markers are written ◆ No Daily Transaction Control Totals written ◆ No Daily Cash Account Control Totals written ◆ No CA Reconciliation is carried out ◆ No transactions are harvested ◆ No transaction details are output to TIP. Note that if a node is down when EOD is attempted on the gateway no further attempt to write EOD will be made until “tomorrow’s EOD time” When the node is restored a private EOD marker will be inserted at the normal EOD time. System recovers when all nodes restored as described below.

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	time for EOD	time for EOD	
2. End of Day – Gateway node failure	End of Day will not run if gateway server is down: ◆ No public end of day markers are written ◆ No Daily Transaction Control Totals written ◆ No Daily Cash Account Control Totals written ◆ No CA Reconciliation is carried out if it is a Cash Account day ◆ No transactions are harvested ◆ No transaction details are output to TIP. If the node is restored before midnight (local time) EOD will run as normal (see above)	If node goes down then end of day will fail: ◆ No public end of day markers are written ◆ No Daily Transaction Control Totals written ◆ No Daily Cash Account Control Totals written ◆ No CA Reconciliation is carried out if it is a Cash Account day ◆ No transactions are harvested ◆ No transaction details are output to TIP. If the node is restored before midnight (local time) EOD will run as normal (see above)	As above System recovers when all nodes restored: ◆ Public end of day markers will be inserted at appropriate places ◆ Daily Transaction Control Totals written for each end day that node was down ◆ CA Reconciliation is carried out if it is a Cash Account day ◆ Daily Cash Account Control Totals written for each end day that node was down ◆ All missing days will be harvested ◆ Daily Transaction Control Totals will be checked by TPS Host Transaction files will be passed onto TIP. (All “missing” Transactions will be harvested with the “correct” Trading date)
3. End of Day - LAN failure	Same as for failure in non-gateway node (see 1 above)	Same as for failure in non-gateway node (see 1 above)	Same as for failure in non-gateway node (see 1 above)
4. End of Day – WAN failure This condition is not detected at the counter. It is only visible at the data Centre	End of Day will run if WAN is down: ◆ Public end of day markers will be inserted at appropriate places ◆ Daily Transaction Control Totals written ◆ Daily Cash Account Control Totals written ◆ Reconciliation checks will be carried out	End of Day will continue to run if WAN goes down: ◆ Public end of day markers will be inserted at appropriate places ◆ Daily Transaction Control Totals written ◆ Daily Cash Account Control Totals written	During period of WAN failure: ◆ Public end of day markers will be inserted at appropriate places ◆ Daily Transaction Control Totals written ◆ Daily Cash Account Control Totals written ◆ Reconciliation checks will be carried out

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	if CA day ♦ No transactions are harvested ♦ No transaction details are output to TIP. When WAN recovers: ♦ All missing days will be harvested ♦ Daily Transaction Control Totals will be checked by TPS Host ♦ Transaction files will be passed onto TIP	♦ Reconciliation checks will be carried out if CA day ♦ No transactions are harvested ♦ No transaction details are output to TIP. When WAN recovers: ♦ All missing days will be harvested ♦ Daily Transaction Control Totals will be checked by TPS Host ♦ Transaction files will be passed onto TIP	if CA day ♦ No transactions are harvested ♦ No transaction details are output to TIP. When WAN recovers: ♦ All missing days will be harvested ♦ Daily Transaction Control Totals will be checked by TPS Host ♦ Transaction files will be passed onto TIP
5. End of Day – Node rebuilding following failure	N/A	Node rebuilding for a non gateway node will have no effect on end of day and details will be harvested to TIP in the normal way Node rebuilding of gateway node will delay end of day processing until rebuilding is complete. Then end of day will run and harvesting will run as normal.	N/A
6. End of Day – Application failure	N/A	Messages are not physically committed until EOD has completed successfully. I.e. When the last message has been written to the message store. Service will automatically restart when the system is re-booted or the overnight reload of desktop takes place	N/A
7. Cash Account Production and Rollover – Non-gateway node failure	Cash Account Production can proceed on gateway node so long as: ♦ All stock units have been rolled over ♦ User says OK to proceed when warned	Failure of a non-gateway node during the production of the cash account will cause Cash Account to fail. However production of the Cash Account can be restarted on the gateway node: (or this	During period of node failure: ♦ Outlet can roll over and process as normal (see column 1) ♦ Cash Account can be produced

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	that all nodes are not available But subsequent end of day will not run. Thus: ◆ Outlet will roll over and process as normal ◆ Cash Account will be produced ◆ Weekly Cash Account Control Totals written ◆ No cash account details will be harvested ◆ No cash account details will be output to TIP.	node when back on line). But subsequent end of day will not run. Thus: ◆ Outlet will roll over and process as normal ◆ Cash Account will be produced ◆ Weekly Cash Account Control Totals written ◆ No cash account details will be harvested ◆ No cash account details will be output to TIP.	◆ Weekly Cash Account Control Totals can be written ◆ No cash account details will be harvested ◆ No cash account details will be output to TIP. When non-gateway node is restored the system recovers when next EOD is run: ◆ All missing cash account details and totals will be harvested ◆ Stock Holding and Cash Account Line Control Totals will be checked by TPS Host ◆ Cash account details will be output to TIP. ◆ CA Reconciliation is carried out if it is a Cash Account day
8. Cash Account Production and Rollover – gateway node failure	N/A	CA production can proceed on any other node. As for 7 above.	As for 7 above
9. Cash Account Production and Rollover - LAN failure	As for (7) above		
10. Cash Account Production and	During period of WAN failure:	Same as column 1	During period of WAN failure:

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Rollover – WAN failure	◆ Outlet will roll over and process as normal ◆ Cash Account will be produced ◆ Weekly Cash Account Control Totals written ◆ No cash account details will be harvested ◆ No cash account details will be output to TIP. When WAN recovers: ◆ All missing cash account details and totals will be harvested ◆ Stock Holding and Cash Account Line Control Totals will be checked by TPS Host ◆ Cash account details will be output to TIP.		◆ Outlet will roll over and process as normal ◆ Cash Account will be produced ◆ Weekly Cash Account Control Totals written ◆ Weekly cash account reconciliation will be carried out at outlet ◆ No cash account details will be harvested ◆ No cash account details will be output to TIP. When WAN recovers: ◆ All missing cash account details and totals will be harvested ◆ Stock Holding and Cash Account Line Control Totals will be checked by TPS Host ◆ Cash account details will be output to TIP.
11. Cash Account Production and Rollover - Node rebuilding following failure	N/A	Node rebuilding for a non gateway node will have no effect on CAP rollover and details will be harvested to TIP in the normal way Node rebuilding of gateway node will delay CAP rollover until rebuilding is complete.	N/A
12. Cash Account Production and Rollover – Application	N/A	If these do not complete successfully, then they can be re-invoked Since harvesting is based on “trailer messages” written at the end of the process,	N/A

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failure		then the harvester should only pick up the successfully completed Rollovers and cash Account reports. There are checks to prevent 2 Rollovers being done for the same week and 2 cash Accounts to be produced.	
13. Agent & Harvester processing – application failure		Harvesters consider the following types of failure :- Riposte failures. If these failures are “expected” failures such as Riposte has died, then the agent will die leaving another instance of the agent to tidy up The chunk may well be marked as “Failed” (thus requiring manual intervention by CFM before recovery), since if Riposte has died it is likely that other instances of the agent would have the same problem Oracle failures. If these failures are “expected” failures such as Oracle having died then the agent will die leaving another instance of the agent to tidy up The chunk may well be marked as “Failed” (thus requiring manual intervention by CFM before recovery), since if Oracle has died it is likely that other instances of the agent would have the same problem Unexpected Oracle failures. These are assumed to be data failures, and so a message is logged to the Oracle database and reported by the Host (see 5.2)	N/A
14. Agent & Harvester			

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processing – normal interface failure			
15. File transfer – application failure	To be supplied	To be supplied	To be supplied

Second Supplemental Agreement Annex to Schedule 2

Acceptance Incident Analysis Form		<i>To be completed by the ICL Pathway Acceptance Manager: to be given to the Horizon Acceptance Incident Manager</i>	
Acceptance Incident Number (1) 378		Analysis Sequence Number (2)	
Acceptance Test Name (3) TIP Interface			
Analysed Incident Severity (4)		High / Medium / Low (4) Medium	Authority (5)
Analysis of Acceptance Incident (6) Fix applied 9-10/8 Incidents since notified to TIP 908 are earlier repeats. Please see document CR/ACD/378 v0.3 Incident TIP 916, which has similar symptoms but a different root cause is being diagnosed and the system made robust against such occurrences.			
Number of continuation pages			
Clearance Action (7) Pathway will continue analysis of TIP incident 916, with a view to fix as soon as possible. The initial fix for TIP 916 will be implemented, after which Pathway seeks this AI to be recategorised as Low. When the final fix has been implemented and monitored as successful for two weeks, Pathway will seek the closure of the AI.			
Number of continuation pages			
Acceptance Incident Status (Open/ Analysed Retest/Recommended for KPR (8))		Agreed Resolution Plan	
Signatures:			
I propose the Clearance Action and Incident Status described above	P. John Pope	ICL Pathway Test Manager	16-Sep-99
I accept / reject the Clearance Action and Incident Status described above		Horizon Acceptance Test Manager	Date:
Horizon Acceptance Incident Manager			Date:
DSS Acceptance Manager		POCL Business Assurance	
	Date:		Date:

ICL Pathway

**Acceptance Deposition
Acceptance Incident 378**

Ref: CR/ACD/378
Version: 0.3
Date: 16/9/99

Document Title: Acceptance Resolution Plan for Acceptance Incident 378

Document Type: Acceptance Resolution Plan

Abstract: This document contains ICL Pathway's Resolution Plan in respect of Acceptance Incident 378.

Status: Issued

Distribution: Expert:
Peter Copping

ICL Pathway:
Terry Austin

Library

POCL:
John Meagher
Min Burdett
Jeff Austin
Calum Craig

Author: P John Pope

Comments to: Pathway list

Comments by:

ICL Pathway

**Acceptance Deposition
Acceptance Incident 378**Ref: CR/ACD/378
Version: 0.3
Date: 16/9/99

0 Document control**0.1 Document history**

Version	Date	Reason
0.1	20/8/99	Initial draft for comments
0.2	25/8/99	Version for the Expert and workshop 26/8
0.3	16/9/99	Updated.

0.2 Approval authorities

Name	Position	Signature	Date
J H Bennett	Managing Director		
J C C Dicks	Customer Requirements Director		

0.3 Associated documents

Reference	Vers	Title	Source
		AI378 TIP Incident Status Report	Pathway

0.4 AbbreviationsTMS
TIP

ICL Pathway

Acceptance Deposition
Acceptance Incident 378

Ref: CR/ACD/378
Version: 0.3
Date: 16/9/99

0.5 Table of content

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1 Purpose

This document contains ICL Pathway's Resolution Plan in respect of Acceptance Incident 378.

2 Summary

ICL Pathway distributed the fix to the original incident, of which there were five occurrences, on 9-10 August. ICL Pathway is preparing an extension to this fix to cover a similar incident.

3 Criteria

The Criterion under test is 831/1.

"The Contractor shall support interfaces from TMS and Outlets to Transaction Information Processing TIP".

4 POCL position

Based upon the minutes of the Acceptance Board Meeting of 18 August 1999, POCL contended that:

"rectification activity had not been successful and further analysis was awaited from Pathway".

5 Pathway position

5.1 Further analysis from Pathway

The original incident that gave rise to AI 378 was diagnosed and a fix was distributed to the counters on 9-10 August. There had been two occurrences.

A further three incidents were reported all relating to the period before 10 August.

A further incident with similar symptoms, but a different root cause (TIP 916) has been reported and is being diagnosed and the system made robust against such occurrences.

5.2 Resolution

ICL Pathway will continue to monitor for such incidents and fix them. The incidents are tracked at the detailed level in *AI378 TIP Incident Status Report*.

ICL Pathway

Acceptance Deposition
Acceptance Incident 378

Ref: CR/ACD/378
Version: 0.3
Date: 16/9/99

5.3 Clearance action

The clearance plan is to monitor the live system for any re-occurrence of such incidents. The fix implemented on 9-10 August has been in monitored as successful for over a month.

The fix for TIP 916 is in preparation and will be monitored for a period of two weeks after implementation.

Second Supplemental Agreement Annex to Schedule 2

Acceptance Incident Analysis Form		<i>To be completed by the ICL Pathway Acceptance Manager: to be given to the Horizon Acceptance Incident Manager.</i>	
Acceptance Incident Number (1) 390		Analysis Sequence Number (2)	
Acceptance Test Name (3) APS			
Analysed Incident Severity (4)		High / Medium / Low (4) Medium	Authority (5)
Analysis of Acceptance Incident (6) POCL will be aware that ICL Pathway are changing the recovery processes of APS for CSR+. This includes providing support for recovery of reversals. At CSR+ APS will automatically write recovery transactions for all AP transactions. In the event of a Session failure these recovery transactions will be used to automatically recover their original AP transaction. In the event of a Disaster recovery at CSR +, the concept of gaps is removed. In this situation the message store is being reinstated from a remote node and the recovery transactions are not available. APS simply asks the clerk for details of any receipts which he has which have a date/time more recent than the latest known APS transaction message. If the clerk chooses not to recover all receipts in this category then the clerk must retain these receipts for later processing. The data entry process will also use check digits on each data item being entered from the receipt.			
Number of continuation pages			
Clearance Action (7) Additional response 17/08/99. In addition to the CSR+ facilities described above, the following change will be introduced into APS by the end of November 1999. Following a crash, and when undertaking Session recovery or Disaster recovery (i.e. for those transactions where a system receipt has been produced), the user will still have the option of reserving a gap of transactions and delaying recovery to a more convenient time. However should a second crash occur, the clerk will be forced to undertake recovery of all those deferred transactions and then any other transactions that may have occurred as a result of the second crash. The recovery of transactions produced during fall back for which manual receipts are produced are not affected by these changes. Additional response 31/08/99. This introduction of the above change to APS by the end of November 1999 has been agreed by POCL and this Analysis Form documents that agreement in accordance with the action agreed at the Acceptance Workshop on 25/8/99. Additional response 16/9/99 This AI has been recategorised as Medium with an agreed Resolution Plan.			
Number of continuation pages			

Second Supplemental Agreement Annex to Schedule 2

Acceptance Incident Status (Open/ Analysed Retest/Recommended for KPR (8))		Agreed Resolution Plan	
Signatures:			
I propose the Clearance Action and Incident Status described above	D.Cooke	ICL Pathway Test Manager	Date: 11/8/99 & 17/08/99 & 31/08/99 & 16/9/99
I accept / reject the Clearance Action and Incident Status described above		Horizon Acceptance Test Manager	Date:
Horizon Acceptance Incident Manager			Date:
DSS Acceptance Manager		POCL Business Assurance	
	Date:		Date:

ICL Pathway

**Acceptance Resolution Plan
Acceptance Incident 391**

Ref: CR/ACD/391
Version: 1.0
Date: 13/9/99

Document Title: Acceptance Resolution Plan for Acceptance Incident 391

Document Type: Acceptance Resolution Plan

Abstract: This document contains the agreed Resolution Plan in respect of Acceptance Incident 391.

Status: Issued

Distribution: Expert:
Peter Copping

ICL Pathway:
Library

POCL:
Bob Booth/Jeremy Folkes

John Meagher
Min Burdett
Jeff Austin

Author: D J Jones / J C C Dicks

Comments to: ICL Pathway list

Comments by:

ICL Pathway

**Acceptance Resolution Plan
Acceptance Incident 391**Ref: CR/ACD/391
Version: 1.0
Date: 13/9/99

0 Document control**0.1 Document history**

Version	Date	Reason
0.1	20/8/99	Initial draft
0.2	24/8/99	Draft Version for the expert and workshop 25/8
0.3	25/8/99	Version for the Expert and workshop 25/8
0.4	10/9/99	Version documenting the agreed Resolution Plan
1.0	13/9/99	Plan agreed at 13/9/99 Workshop

0.2 Approval authorities

Name	Position	Signature	Date
J H Bennett	Managing Director		
J C C Dicks	Customer Requirements Director		
M Bennett	Quality and Risk Management Director		

0.3 Associated documents

Reference	Vers	Title	Source
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0.4 Abbreviations

0.5 Table of content

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1. Purpose

This document sets out the ICL Pathway Resolution Plan with respect to Acceptance Incident 391.

2. Summary

This plan contains the actions agreed with Jeremy Folkes and Bob Booth (POCL) that now constitute a satisfactory Resolution Plan for the issues raised under Acceptance Incident 391.

3. Criteria

The Criteria under test are PS-22, PS-39, PS-40, PS-41, 698-03, 698-02, and 698-01.

[DN: PS39 is a repetition of 698-01; PS40 is a repetition of 698-02; PS41 is a repetition of 698-03; PS22 is modified in the Codified Agreement to remove certain references to DSS.]

4. POCL position

Several meetings have been held with POCL representatives and POCL have now agreed that the actions in place to address the issues raised under AI 391 are acceptable.

5. ICL Pathway position

5.1 Evidence to enable the plan to be agreed

5.1.1 Analysis of the Incident

POCL and ICL Pathway agreed that the specific areas of concern were as follows:

BOOTLE

1. The Data Centre fence is in a totally unsatisfactory state (acknowledged by A&L)
2. There are no physical restrictions on pedestrian access up to within 2m of the Data Centre, with the outer site fence claimed purely to be a delimiter and not intended as a physical control.
3. Vehicle access is still possible to within 2 metres of the Data Centre. CCTV coverage of the car park close to the Data Centre does not appear good, and POCL have been denied permission to view the CCTV coverage. Pathway's

previous stated mitigations to the proximity of the car park, based on CCTV tracking, control of visitors cars, etc do not appear to be effective.

WIGAN

4. Access via a back gate was not restricted or covered by CCTV.
5. Expected CCTV improvement has not been implemented.
6. Site security is totally dependent on a single security guard / receptionist / CCTV operator with no defined backup.

5.1.2 Resolution Plan

BOOTLE

- 1 Since the last POCL visit repairs to the data centre fence have been carried out. Missing or broken tension wires and fixings, attaching the fencing to the concrete posts and hooks to secure the fence to the ground have been replaced and the locks on the emergency access gates are now secure.
- 2 The perimeter fence upgrade, installed to date and in progress will substantially improve the security at the site. The likely A&L timetable for completion of the third phase of the perimeter fence upgrade is deemed unacceptable by Pathway. Therefore Pathway will install a new palisade fence, by the end of November 1999, at 5 metres from the data centre that will be to the same standard as the one installed outside the data centre at Wigan.
- 3 Changes will be made to the Alliance and Leicester Quality System security procedures, specifically relating to visitors arriving in a vehicle. The content of the changes have been agreed with POCL (J Folkes & B Booth) and A&L (B Jones). The necessary entries in the A&L Quality System documentation will be completed by 31/10/99.

WIGAN

- 4 Pathway will extend the A & L card access system, in line with corporate standards, to the pedestrian access gate adjacent to the canal by the end of November 1999.
- 5
 - a) An additional external camera covering the area between the data centre and the perimeter will be installed by 30 September.
 - b) Pathway is currently considering options for adding a further exclusion zone approximately 30 metres from the data centre. These options include motion detection, a further palisade fence or a microwave fence. Pathway will make the decision as to its preferred option by the end of September, for implementation by the end of December 1999. POCL will be informed by Pathway as to which option has been chosen. The local procedures will be updated to take into account changes related to the new exclusion zone and Pathway will also add this onto the RED CARE system when installed.
- 6
 - a) Pathway will produce instructions related to the Wigan Security Guards response to alarms on their pager, for inclusion in the A&L standing instructions. A&L have confirmed that they will incorporate these instructions in their procedures by 31/10/99.

b) Pathway is adding the RED CARE monitoring system to the alarm trigger mechanism on the palisade fence, by 30/09/99.

5.2 Resolution Plan summary

All Resolution Plan activities are now agreed with POCL and have been scheduled or completed.

Pathway will provide site plans to POCL, by 30/09/99, for both Bootle and Wigan, marked up to show where the additional security controls are/will be situated.

Ongoing monitoring of the plan will be carried out jointly and a POCL visit is proposed to take place when all actions are complete (in late December or at the latest, early in January 2000).

ICL Pathway	Resolution Plan for AI408- Horizon System Helpdesk	Ref.:	CR/ACD/408
		Version:	1.5
	Company-in-Confidence	Date:	23/09/1999

Document Title: Resolution Plan for AI408- Horizon System Helpdesk

Document Type: Report

Release: CSR

Abstract: This document provides additional information and explanation concerning the resolution of AI408.

Document Status: Definitive

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Document Control

0.5 Document History

Version No.	Date	Reason for Issue
1.0	26/08/99	First issue
1.1	08/09/99	Updated following workshops and reviews with POCL
1.2	16/09/99	Updated following an SLA workshop with POCL
1.3	17/09/99	Updated following Acceptance Meeting
1.4	21/09/99	Updated Rectification Plan
1.5	23/09/99	Updated rectification Plan following a conversation between Adele Henderson and Paul Westfield.

0.5 Approval Authorities

Name	Position	Signature	Date
Stephen Muchow	Director, Customer Service		
John Dicks	Director, Customer Requirements		

0.5 Associated Documents

Reference	Version	Date	Title	Source
1) CS/SMM/AI408	1.0	17/08/99	HSH Scripting, SLA Recovery and Resource Plan	ICL Pathway
2)	1.0	24/08/99	AI408 – HSH Service Level Failure	POCL

0.5

ICL Pathway

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Abbreviations/Definitions

Abbreviation	Definition
FTE	Full Time Equivalent
HSH	Horizon System Helpdesk
SLA	Service Level Agreement

0.5 Changes in this Version

Version	Changes
1.1	Primarily changes following the Acceptance Workshop on 26 August and the Call Volume/HSH Model Workshop on 8 September. Revision to document title.
1.2	Changes following the Acceptance Workshop on 14 September to agree with POCL the Cash Account calls to be removed from the L1 and L2 SLA calculations and confirm that these SLAs were met during the month of August. Primarily Section 5.2.2 and 5.2.4.2 and a new 5.3. The old 5.3 is now 5.4 17/09/99 – Additional final paragraph in section 5.2.4.2
1.3	Changes to section 5.3 and 5.4
1.4	Changes to section 5.2.4.2, 5.3 and 5.4
1.5	Changes to section 5.1 and 5.4

0.6 Table of Contents

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1

Introduction

This document has been produced following the POCL / ICL Pathway Acceptance Board Meeting of 18/08/99 and addresses the comments made in the minutes of that meeting with respect to Acceptance Incident 408 and the statements made in the POCL paper *AI408 – HSH Service Level Failure – 24/08/99*.

This document provides additional information and explanation to that contained in *HSH Scripting, SLA Recovery and Resource Plan - CS/SMM/AI408 - 17/08/99* issued to POCL as input to the Acceptance Board.

This document has been updated in the light of the Acceptance Workshop of 26/08/99 and the Call Volume/HSH Model Workshop on 8 September.

This document has been updated in light of the Acceptance Workshop on 14 September.

2 Scope

The scope of this paper comprises the content of AI408, the contents of the above paper CS/SMM/AI408, the topics contained in the draft minutes from the above Acceptance Board meeting and the paper *AI408 – HSH Service Level Failure*.

The topics can be summarised as: -

- Plan for production and implementation of additional HSH Cash Account scripts
- HSH Resource Plan, comprising call volume projections and HSH staffing projections
- HSH SLA Rectification Plan

3 POCL position

Based upon the minutes of the Acceptance Board meeting of 18 August 1999, POCL contended that:

"Production of scripts is not complete"

"It does not take account of activities such as the need to train staff"

"Some items have already missed dates"

"Call volume projections and staffing projections contain assumptions that POCL cannot agree based on experience to date"

On 24/08/1999 POCL also provided the paper *AI-408 - HSH Service level Failure*. This supplemented the above points as follows:

- POCL's experience to date is that some scripts have resulted in inappropriate advice resulting in further calls to HSH and the National Business Support Centre.

- POCL requires an explanation of how the call volume projections are produced and the logic that supports this process.
- POCL requires that the SLA rectification plan is produced and agreed.

4 ICL Pathway position

Taking the three main topics within this AI, ICL Pathway's position can be summarised as: -

- HSH scripting plan - The plan described in section 2 of ref. (1) remains the basis for addressing this aspect of the AI. The Acceptance Board may not have been aware that actions designated for the 17th and 18th August were completed on time. Subsequent actions within ICL Pathway and POCL have been completed in a timely and co-operative manner from all parties involved. The revised HSH Cash Account script document was re submitted to POCL as Cash Account Process - ICL/PW/DSP/PRO/023 - version 2.1 - 24/08/1999.

(At the Acceptance Workshop of 26/08/99, POCL advised that there were further comments on the scripts and a joint POCL/Pathway workshop aimed at finalising the scripts was planned for (and was held on) 02/09/99)

- HSH Resource Plan - Call Volume prediction

ICL Pathway wish to ensure that POCL has confidence in the modelling tools and management processes that are used to manage the Horizon System Helpdesk in terms of staffing levels. The development of the HSH resource model draws upon a decade of market leading experience of ICL providing Help Desk Services to a diverse range of Clients.

Some of the key assumptions were introduced in ref. (1) and to supplement this ICL Pathway proposed that a workshop be held with POCL to address POCL's concerns. A set of objectives for this event was proposed in section 5.2. This event was held 7-8/9.

The HSH has experienced a substantial increase in calls on Wednesday / Thursday associated with outlets having difficulties in completing the Cash Account process. This increase in business related calls was not predicted and it is ICL Pathway's intention to establish a cash account domain of skilled staff with the appropriate business knowledge dedicated to handling this increase.

ICL Pathway does not consider it appropriate for these complex business related calls to be handled within the SLA constraints of the Level 1 / Level 2 call definitions. These calls have distorted the SLA performance.

- SLA Rectification Plan

The actions and target dates that will contribute to an improvement in the HSH SLAs are set out in section 5.3.

5 Clarifications and Progress

5.1 HSH Scripting Plan

The script production plan described in ref. (1) and shown below has now been successfully achieved with all actions completed on time.

No.	Description	Target date	Owner	Achieved
1	Produce additional elements of Cash Account Process document in draft form for POCL comment	17/08/99	P. Curley	✓
2.	Review and issue additional scripts to POCL	17/08/99	P. Curley	✓
3.	POCL review and comment on new scripts	19/08/99	POCL	✓
4.	Collate and respond to comments	20/08/99	P. Curley	✓
5.	Review and respond to POCL comments on version 2.0 draft of document	17/08/99	P. Curley	✓
6.	Review comments with HSH	19/08/99	P. Curley	✓
7.	Incorporate accepted comments into document from new scripts and comments against draft Ver 2.0	23/08/99	P. Curley	✓
8.	Issue Document as V2.1 definitive (status to be confirmed with POCL)	24/08/99	P. Curley	✓ 3.9.99

5.1.1

Future activities

Following agreement of the new scripts, and in conjunction with the establishment of the cash account domain, these scripts came into operation from 08/09/99.

It was agreed that a joint ICL Pathway / POCL review be held on 14/09/99. The objectives of the review held on 14/09/99 being:

- Review scripts in light of operational use.
- Review, agree and include any additional scripts
- To identify any learning opportunities

Such reviews will continue in line with the recommendation in ICL/PW/DSP/PRO/023

5.2 HSH Resource Plan

5.2.1 Background

The development of the model to support the resource requirements of the HSH was based on ICL's previous experience in providing a wide range of Help Desk services covering both systems and infrastructure call types. This was supplemented by a set of assumptions covering the particular call types that ICL Pathway believed would be generated by POCL's outlets.

ICL Pathway successfully applied the call volume and HSH resource model during the period of Release 1a through to Release 1c. During this period there was good achievement against SLA targets.

During the period of LT1 it became clear that the actual call patterns diverged from those predicted by the models. In particular there were significant differences in call volumes following the introduction of the first Wednesday cash account.

Following the second and subsequent cash accounts the continuing high level of calls on Wednesday / Thursday, which had not been predicted by the model, required that remedial action should be taken.

The resources of the HSH were supplemented by expert assistance from POCL and Peritas (now termed KnowledgePool) who were able to successfully handle the complex business related aspects of these Cash Account calls. This had a beneficial impact on the call response times for the remaining calls being handled by HSH staff.

5.2.2

Service Level Analysis

Level 1 and Level 2 call resolution SLAs (excluding cash account calls as agreed with POCL on 14 September) met their targets in August – see tables below.

Service Level Calls Resolved:		Number of calls	August	Target
Level 1	<= 5 minutes	190	96%	95%
	>5 minutes & <= 10 minutes	9	100%	100%
Level 2	<= 30 minutes	144	97%	95%
	> 30 minutes & <= 45 minutes	4	100%	100%
Total		347		

5.2.2.1 Level 1 & Level 2 Calls Analysis – August 1999

The table below shows the number of service calls that were included within the L1 and L2 SLAs and those which needed to be re-categorised as agreed with POCL on 14 September. Cash Account printing calls remained in L2 as they involved an operational known error. The sub categories can be seen in appendix A.

Total L1 & L2 Recorded in the Data Warehouse	455
--	-----

Calls to be re-categorised out of L1 & L2:	
Complaints	12
Cash Account (see section 5.2.2.2)	96

Calls to remain within L1 & L2:	
Implementation	2
Advice & Guidance	292
Printing within Cash Account	53
Total	347

5.2.2.2 Cash Account Calls Analysis

The tables below show the breakdown of those Cash Account calls that were removed from the L1 and L2 SLA calculations.

Category	Number of calls	%
Cash Account Reports	22	23
Declarations	22	23
CAP Roll Over	19	20
Suspense Account	16	17
Stock Unit Balance	10	10
Discrepancies	7	7
Total	96	

The table below shows the number of calls falling into resolved time periods.

Calls Resolved:	Number of calls	%
<= 5 minutes	48	50
>5 minutes & <= 10 minutes	22	23
> 10 minutes	26	27
Total	96	100

5.2.3 HSH Staffing review

At the 08/09/99 workshop on the Call Volume/HSB model ICL Pathway shared with POCL the most up-to-date HSH resource plans for the remainder of 1999. These separately identified the staffing for cash account calls. The predicted staffing level, in terms of Full Time Equivalents, is set out below.

Model prediction (FTEs)	Oct	Nov	Dec
HSB staff (excl. cash a/c)	26	35	35
Cash a/c staff	6	8	8
Total staff	32	43	43

The planned staffing of HSH is as set out below.

	Oct	Nov	Dec
Fully operational HSH analysts	34	39	43
KnowledgePool staff for cash account domain	10	8	4

5.2.4 Conclusions

5.2.4.1 HSH staffing levels

From its analysis ICL Pathway believes that the HSH is sufficiently resourced now to meet the call volumes for Level 1 and Level 2 call types. Further resource is needed to augment performance on cash account days.

5.2.4.2 Cash Account Domain

ICL Pathway has therefore established a domain of specialist staff with the business skills to handle Cash Account related calls. The solution for service levels for Cash Account calls was discussed at the workshop on 7/8 September and further suggestions were tabled at the workshop on 14 September.

The scripts now employed have been agreed with POCL and are to be reviewed regularly to ensure they remain as effective as possible. Since the navigation of the scripts is dependant upon information provided by the postmaster and may involve returning to the counter terminal to provide further tasks as instructed, the time elapsed will vary (e.g. closeness to telephone, frequency of external interruptions, etc.). It was agreed at the acceptance meeting that benchmarking of Cash Account scripts would add little value in determining the service performance and that a qualitative approach would adopted as follows:

1. 100% availability of helpdesk staff skilled in providing the appropriate advice and guidance. That is, no postmaster will be told that they would be rung back on initially logging a call at the HSH.
2. No repeat call(s) from the same postmaster for the same incident in the same accounting period.

On 21 September it was further agreed that

3. POCL will attend the HSH to audit that the approved call scripts have been followed conscientiously and that consistent advice has been given. The performance measure is 95% conformance.

Pathway suggests that Customer satisfaction with the Help Desk service should be determined quarterly as described in requirement 914. Pathway will be pleased to assist POCL in devising and conducting the satisfaction survey.

POCL may assure themselves that Cash Account service calls have been correctly coded by the HSH through their existing Internet access to Powerhelp. The problem type ID, described in Appendix A, may be used to construct searches as required.

Should POCL wish to further understand Pathway's processes for service level measurement then Pathway would be willing to provide a two-day workshop on the subject.

5.2.4.3 HSH Resource Planning workshop

In order to ensure that POCL share ICL Pathway's confidence in the robustness and flexibility of the tools and processes used in HSH Resource planning, ICL Pathway has held a workshop with POCL to cover this topic in more detail.

The objectives of the event being: -

- To enable POCL to gain understanding and have confidence in the overall philosophy of the call volume model and it's relationship to the resource planning model.
- To discuss and explain the factors and logic that apply to the modelling of call types and call profiles
- To explain the iterative management processes that are supported by the model
- To review the impact of Cash Account related calls on service levels

5.3

Monitoring Period

A workshop was held on 14th September to audit the service performance of Level 1 and Level 2 calls and Cash Account calls. It was agreed that the service levels were met.

Weekly monitoring of the service levels shown below will commence on the 4th October for a six-week period, ending 14th November. Over the six-week period each individual service level must be met, as a minimum, for 4 weeks. Reporting on the achievement will be weekly and in the form of the following table.

Service Level		Target	Week Commencing					
			04/10	11/10	18/10	25/10	01/11	08/11
Level 1	= 5 minutes	95%						
	= 10 minutes	100%						
Level 2	= 30 minutes	95%						
	= 45 minutes	100%						
Calls answered within 20 seconds		80%						
Cash Account calls	Ring backs	0%						
	Repeat Calls	0%						
	Call scripts compliance	95%						

5.4

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SLA Rectification Plan

This section summarises the activities that comprise the SLA Rectification Plan.

	Description	Target or Achieved (✓) Date
HSH Scripts		
1.	New scripts agreed with POCL (31/08/99)	✓ 3.9.99
2.	Implement new scripts (wef 08/09/99)	✓ 8.9.99
3.	Initial ICL Pathway / POCL review of the implementation of scripts in accordance with ICL/PW/DSP/PRO/023	✓ 14.9.99
Call Volume/ HSH model		
4.	Hold workshop with POCL (on 07-08/09/99)	✓ 7/8.9.99
HSH Staffing		
5.	Train and introduce 2 additional HSH staff TOTAL operational staff = 21 (by 31/08/99)	✓ 31.8.99
6.	Train and introduce additional HSH staff in light of monthly updates to Call Volume/HSH Model	On-going
7.	Review of staffing model at the end of October. Date agreed for 18/10/99	26.10.99
Call handling process		
8.	Complete refresher courses on call handling process (2 nd line) by 31/08/99	✓ 31.8.99
9.	Start refresher courses on call handling process (1 st line) by 01/09/99	✓ 1.9.99
10.	Complete refresher courses on call handling process (1 st line)	30.9.99
Cash Account Domain		
11.	Specialist staff identified and re-deployed by 06/09/99	✓ 6.9.99
12.	Cash Account domain operational (wef 08/09/99)	✓ 8.9.99
13.	Train 6 HSH staff in use of cash account scripts	✓ 15.9.99
14.	Train further 14 HSH staff in use of cash account scripts	30.9.99
SLA achievement		
15.	Hold workshop with POCL (on 14/09/99)	✓ 14.9.99

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	Description	Target or Achieved (✓) Date
16.	Publish proposed service measurement for Cash Account calls by 16/09/99	✓ 16.9.99
17.	Publication of the weekly SLA measurement, as described in section 5.3, will be on following Wednesday	On-going
18.	Appendix A to cross-reference the equivalent service contract schedule	30.9.99
19.	Meeting to discuss the logistics and metrics for measuring the Cash Account service levels. First audit agreed for 13/10/99. (see section 5.2.4.2)	✓ 21.9.99
20.	Pathway to hold a two-day workshop to describe its processes for service level measurement. Workshop date agreed for 19/09/99	27.10.99
Closure of Acceptance Incident		
21.	Given that the monitoring period is successful, the Acceptance Incident will be closed on 21 st November 1999	21.11.99

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6 Appendix A – Problem Type against Service Level

Closed Calls August 1999

Call Description	Problem Type	Level	Problem Description	No. Calls
ADVICE & GUIDANCE	AD01	N/A	BES OPERATION ENQUIRY	1
ADVICE & GUIDANCE	AD02	N/A	BES FALLBACK ENQUIRY	1
ADVICE & GUIDANCE	AD03	Level 1/2	EPOSS OPERATION ENQUIRY	354
ADVICE & GUIDANCE	AD04	Level 1	EPOSS FALLBACK ENQUIRY	6
ADVICE & GUIDANCE	AD05	Level 1	APS OPERATION ENQUIRY	11
ADVICE & GUIDANCE	AD06	Level 1	APS FALLBACK ENQUIRY	6
ADVICE & GUIDANCE	AD07	Level 1	OBCS OPERATION ENQUIRY	10
ADVICE & GUIDANCE	AD09	Level 1	OPERATING ENVIRONMENT ENQUIRY	26
ADVICE & GUIDANCE	AD10	Level 2	OPERATING ENVIRONMENT CONSUMABLE	1
ADVICE & GUIDANCE	AD11	Level 2	DOCUMENTATION ISSUE	1
ADVICE & GUIDANCE	AD12	Level 2	SYSTEM ACCESS ENQUIRIES	33
ADVICE & GUIDANCE	AD13	Level 2	CUSTOMER COMPLAINT	2
ADVICE & GUIDANCE	AD14	Level 2	GENERAL ENQUIRY	3
OTHER	CC01	Level 3	POST OFFICE - EMERGENCY CLOSURE (SHORT TERM CLOSURE)	1
OTHER	CC03	Level 3	POST OFFICE -REOPENED	1

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OTHER	CC22	Level 3	POST OFFICE - PLANNED CLOSURE	1
OPERATIONS	FE01	Level 3	FILE TRANSFER FAILURE	2
OPERATIONS	FE04	Level 3	INTERFACE OPERATION FAILURE	1
SOFTWARE	FE05	Level 3	SOFTWARE ERROR DETECTED	45
NETWORK	FE06	Level 3	CLIENT SYSTEM - NETWORK PROBLEM	3
SECURITY	FE07	Level 3	CLIENT SYSTEM - SECURITY BREACH	1
OPERATIONS	FE09	Level 3	EPOSS OPERATION ERROR	23
OPERATIONS	FE10	Level 3	APS OPERATION ERROR	2
OPERATIONS	FE11	Level 3	OBCS OPERATION ERROR	3
HARDWARE	HC01	Level 3	CENTRAL SYSTEM - PROCESSOR FAULT - UNUSABLE	5
HARDWARE	HC02	Level 3	CENTRAL SYSTEM - PROCESSOR FAULT - USEABLE	1
HARDWARE	HC04	Level 3	CENTRAL SYSTEM - TERMINAL FAILURE	2
OTHER	HC09	Level 3	CENTRAL SYSTEM - ENVIRONMENTAL FAILURE - POWER	2
HARDWARE	HD01	Level 3	PERIPHERAL FAILURE - PROCESSOR	19
HARDWARE	HD04	Level 3	PERIPHERAL FAILURE - BAR CODE READER	4
HARDWARE	HD07	Level 3	PERIPHERAL FAILURE - COUNTER PRINTER	14
HARDWARE	HD08	Level 3	PERIPHERAL FAILURE - BACK OFFICE PRINTER	14
HARDWARE	HD09	Level 3	PERIPHERAL FAILURE - KEYBOARD	2
HARDWARE	HD10	Level 3	PERIPHERAL FAILURE - MONITOR TOUCH ELEMENT	3
HARDWARE	HD11	Level 3	PERIPHERAL FAILURE - MONITOR	11

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OTHER	HD12	Level 3	ENVIRONMENT FAILURE - CABLING	4
OTHER	HD13	Level 3	OFFICE ENVIRONMENT FAILURE - POWER	43
HARDWARE	HD14	Level 3	EQUIPMENT DAMAGED OR DESTROYED	2
IMPLEMENTATION	IM01	Level 3	PLANNED ACTIVITY RESCHEDULE	1
IMPLEMENTATION	IM03	Level 3	SITE PREPARATION ISSUE	2
IMPLEMENTATION	IM07	Level 2	OTHER	2
NETWORK	ND01	Level 3	UNABLE TO CONTACT HQ	5
NETWORK	ND02	Level 3	NETWORK FAILURE - ISDN (WAN)	9
NETWORK	ND03	Level 3	POST OFFICE - LINK FAILURE	7
NETWORK	ND05	Level 3	POST OFFICE - CONFIGURATION FAILURE	1
OPERATIONS	OC02	Level 3	POST OFFICE - DATA DOWNLOAD FAILURE	1
OPERATIONS	OD02	Level 3	EPOSS - OPERATION FAILURE	111
OPERATIONS	OD03	Level 3	APS - OPERATION FAILURE	2
OPERATIONS	OD04	Level 3	OBCS - OPERATION FAILURE	4
OPERATIONS	OD06	Level 3	ACCESS AND USER ADMINISTRATION FAILURE	10
OPERATIONS	OD07	Level 3	OPERATING ENVIRONMENT FAILURE	2
OPERATIONS	OD08	Level 3	SYSTEM ENVIRONMENT FAILURE	1
OPERATIONS	OR03	Level 3	CUSTOMER PAYMENT ISSUE	1
RECONCILIATION	RE01	Level 3	EPOSS	3
RECONCILIATION	RE02	Level 3	APS	1
RECONCILIATION	RE04	Level 3	OBCS	3

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OPERATIONS	SC03	Level 3	CENTRAL SYSTEM - OPERATING SYSTEM - PROCESS FAILURE	1
SOFTWARE	SC04	Level 3	CENTRAL SYSTEM - OPERATING SYSTEM - ERROR MESSAGE	1
SOFTWARE	SC05	Level 3	CENTRAL SYSTEM - OPERATING SYSTEM CRASH	1
SOFTWARE	SC12	Level 3	CENTRAL SYSTEM - APPLICATION ERROR MESSAGE	1
OPERATIONS	SC13	Level 3	CENTRAL SYSTEM - APPLICATION - UNABLE TO PROCESS FILES	1
SOFTWARE	SD01	Level 3	SYSTEM MESSAGE DISPLAYED ON SCREEN	38
SOFTWARE	SD02	Level 3	SOFTWARE ERROR	755
SOFTWARE	SD03	Level 3	SYSTEM OPERATION HAS CHANGED UNEXPECTEDLY	29
SOFTWARE	SD04	Level 3	EXPECTED CHANGE HAS NOT WORKED	1
SOFTWARE	SD05	Level 3	OTHER	2
OTHER	XI05	Level 3	OTHER	175
SECURITY	ZS02	Level 3	PMMC CARD OR PIN NUMBER LOST	3
SECURITY	ZS03	Level 3	ONE SHOT PASSWORD REQUIRED	8
Total				1846

Total Level 1 calls = 413

Total Level 2 calls = 42

Total = 455 (agreeing with the figure in 5.2.2.1)

ICL Pathway

Acceptance Resolution Plan
Acceptance Incident 412

Ref: CR/ACD/412
Version: 0.2
Date: 10/09/99

Document Title: Acceptance Resolution Plan for Acceptance Incident 412

Document Type: Resolution Plan

Abstract: This document contains ICL Pathway's Resolution Plan in respect of Acceptance Incident 412.

Document Status: Issued

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**Acceptance Resolution Plan
Acceptance Incident 412**Ref: CR/ACD/412
Version: 0.2
Date: 10/09/99

0 Document control**0.1 Document history**

Version	Date	Reason
0.1	08/09/99	First Issue
0.2	10/09/99	Revised as Resolution Plan following Acceptance Workshop of 09/09/99

0.2 Approval authorities

Name	Position	Signature	Date
J H Bennett	Managing Director		
J C C Dicks	Customer Requirements Director		
S Muchow	Customer Services Director		

0.3 Associated documents

	Reference	Date	Vers	Title	Source
1.	CS/PRO/031	21/10/97	1.0	MIS Report Production and Scheduling	ICL Pathway
2.	CS/PRO/030	21/10/97	1.0	MIS Report dispatch procedure	ICL Pathway

0.4 Abbreviations

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Purpose

This document is provided to resolve the questions and concerns expressed in AI 412 and to propose the basis of its Resolution. This AI relates to ICL Pathway's responsiveness in dealing with requests for ad-hoc reports, the method of calculation used in the July Service Review Book and the ability of ICL Pathway to generate counts of transaction volumes associated with SLA calculations.

The structure of this document follows these three areas of concern.

In addition the response to a particular ad-hoc report request referenced in the AI is also addressed by this document.

1.1 Scope

The scope of this response comprises the original AI412, the supplementary POCL paper *AI412 - Service Performance Reporting* and the minutes of the Acceptance workshop of 09/09/99.

2 Summary

- Ad-Hoc Reporting - ICL Pathway accepts that the response to the particular ad-hoc request referred to in this AI was delayed, but that the overall process is operating correctly.
- July Service Review Book - The Transaction Time service level calculations are based on the previously agreed mean benchmark transaction time. At this time no adjustments were made for fallback transactions since the values for the various categories of fallback transaction time are still in the process of being agreed with POCL.
- Transaction volume counting - ICL Pathway is able to count the various classes of transactions and the overall transaction volumes are published via the ICL Pathway Customer Services Web page.

3 Criteria

No criterion is mentioned in the AI.

4 POCL position

POCL's position is represented in the AI text as:

- ICL Pathway has not responded to an ad-hoc request issued on 22/07/99 associated with the July Service Review Book
- ICL Pathway has refused to respond to three previous ad-hoc requests
- ICL Pathway is unable to count transaction volumes

- "if this data was not available it would not have been possible to report that they had passed the service levels - this calls into question the veracity of their service reporting."

The actions arising from Acceptance Workshop (5) are:

1. POCL / ICL Pathway to meet to review particular examples (*of ad-hoc reporting*) that are of concern to POCL
2. ICL Pathway to consider whether it would be appropriate to provide a targeted teach-in to appropriate POCL experts to enable them to focus their ad-hoc requests around Pathway data structures
3. ICL Pathway to provide further information on (*the SLA reporting cycle*) for POCL to review.

5 Pathway position

The response to this AI is split into three areas to address the various concerns and questions raised by POCL. In addition a Resolution Plan is provided in section 6 to address outstanding activities.

5.1 Ad-Hoc Reporting

ICL Pathway accepts that there has been some delay in dealing with the ad-hoc request of 22/7/99. POCL has since provided evidence that it was actually submitted on 23/7/99 by email, but the intended ICL Pathway recipient did not receive it. Section 2 of this AI response provides the response to this request.

The AI also states that ICL Pathway has refused to provide responses to three previous ad-hoc requests. This is not the case and ICL Pathway believes that POCL were advised why it was not possible to respond to these requests.

The three requests are believed to be:

Date	Ad-Hoc Request Description	Reason
25/06/99	Information of every call to HSH since start of NR2 to present	The volume of information that this would have generated would be considerable and in a form that would make any subsequent analysis difficult. The planned introduction of on-line access to Powerhelp for POCL was believed to be a more appropriate way of meeting this request.
06/07/99	Incidents raised at HSH relating to non-application or desktop specific messages e.g. "out of virtual memory", "virtual	It was explained to POCL that the Horizon system does record failures of this type.

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Date	Ad-Hoc Request Description	Reason
	memory loss".	Such information is now available by inspection of the call closure text via Powerhelp.
06/07/99	Incidents raised at HSH relating to "lockups" and "screen freezes".	It was explained to POCL that the Horizon system does record failures of this type. Such information is now available by inspection of the call closure text via Powerhelp.

5.1.1

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Date: 10/09/99**Ad-Hoc Request - History (Action Point 1)**

The ad-hoc request process (CS/PRO/031 - MIS Report Production and Scheduling) has been in operation for some considerable time, and the procedure for submission was discussed and revised at the July Service Review forum. Many ad-hoc requests have been and continue to be issued and ICL Pathway believes the responses provided are to POCL's satisfaction. The following table summarises recent requests and ICL Pathway's achievement against POCL's required response date.

Requested By	Date of Request	Date required by	Request	Date delivered / response	Outcome
Jayne Widdowson	21/05/99	21/05/99	Freeze incidents	21/05/99	Completed, results supplied
Jayne Widdowson	01/06/99	01/06/99	Calls to HSH by 2 outlets	02/06/99	Completed, results supplied
Jayne Widdowson	01/06/99	04/06/99	OBCS transactions	03/06/99	Completed, results supplied
Jayne Widdowson	10/06/99	10/06/99	OBCS transactions	14/06/99	Completed, results supplied
Phil Turnock	25/06/99	ASAP	All HSH calls since commencement of LT	25/06/99	Face to face discussion between R. Brunskill, PW and Phil Turnock, POCL . See 5.1 above.
Jayne Widdowson	06/07/99	06/07/99	HSH calls - virtual memory,	06/07/99	Telephone discussion between R Brunskill, PW & David McLaughlin. See 5.1 above
Jayne Widdowson	06/07/99	06/07/99	HSH calls – screen freezes	06/07/99	Telephone discussion between R Brunskill, PW & David McLaughlin. See 5.1 above.
Adele Kilcoyne	23/07/99	02/08/99	Txn times / service for EPOSS, OBCS, APS showing performance & calculation of SLA	29/07/99	Receipt response delivered. No trace of original request since. Administrative error.
Lisa Brownsden GRO	08/09/99	08/09/99	Top 10 txns for all June 99 - Aug 99 for OBCS, EPOSS,APS by Product Description.	09/08/99	Completed, results supplied after further clarification of what was required, this was contrary to what was requested via the ad-hoc form.

Analysis of the above shows that responses were provided to POCL for eight out of the nine requests, of which seven were within three days or the POCL required date.

The exceptions were the request of 10/06/99 whose response was delivered after four calendar days, but three POCL Core Working Days, and the request of 23/07/99,

which was not received by ICL Pathway. The subsequent escalation activities were not sufficient to recognise and resolve this.

Complete responses were provided to five requests and POCL were advised that three requests could not be answered directly (see 5.1).

ICL Pathway will normally provide ad hoc reports in accordance with R914 within three POCL Core Working Days where the information required is readily available in the form sought. Where such information is not readily available, as in these cases, ICL Pathway will agree with POCL the most appropriate way of addressing the particular request.

5.1.2 Ad-Hoc Request - Request Definition (Action Point 2)

Analysis of Ad-Hoc Requests shows that it would be mutually beneficial if the style of the request was structured in a form that more readily reflected the data sets available to ICL Pathway and from which the response will be generated.

In order to assist in this process, ICL Pathway will provide a document to POCL by 31 October 1999, highlighting the structure of the data captured in the Data Warehouse, the Riposte Message Store and other Databases (local to ICL Pathway Customer Services / MSU).

This document is intended to assist POCL in identifying whether or not an intended request for information, via the Ad-hoc query process can be readily met. (This does obviously not prevent POCL submitting a request without reference to this document).

It is proposed that a joint workshop be held, prior to 31 October 1999, between ICL Pathway and POCL to discuss the POCL MIS requirements in detail. (This workshop was originally scheduled for the end of August 1999 but was deferred by joint agreement between R Brunskill and Jayne Widdowson (POCL BSM) due to Acceptance activities.

5.1.3 Ad-Hoc Request - Process Improvement (supporting Action Point 1)

In order to improve the handling of Ad-hoc queries it is proposed that the following changes are introduced to the receipt and delivery procedures for Ad-Hoc requests.

- ICL Pathway will arrange for an 'Ad-hoc Query' mailbox to be set up within MS exchange. All members of the ICL Pathway CS / MSU will have access to this mailbox.
- The 'Out of Office' return message will be utilised to advise POCL that a query has been received into the mailbox (Wording to be agreed with POCL)
- The mailbox will be accessed on an hourly basis by ICL Pathway CS / MSU staff who will, upon receipt of a new request, send an e-mail confirmation that the request has been logged by one of the MSU team and will advise the following:
 - The expected completion date of the query, or
 - If the query cannot be completed, the Ad-hoc request will be returned with full details as to why we cannot supply the information

- The Ad-hoc query will then be logged into the Ad-hoc query database
- All replies to the originator will be electronic, using the fields within the Ad-hoc query report.
- In order to complete this procedure correctly, the Ad-hoc query request will be amended to include a field for the originator's e-mail address.
- Ad-hoc query process document ref: CS/PRO/030, v1.0 21/10/97 'MIS Report Despatch Procedure' will be re-issued to describe this new procedure.
- Interim Arrangements - Until the MS mailbox is operational, Ad-hoc requests should be sent, by e-mail, to both:

Kashmir.Purewal **GRO** and Richard.Brunskill **GRO**

5.2 Service Review Book

The particular request mentioned in the AI, dated 23/07/99, requests:

"Transaction Services and transaction times for EPOSS, OBCS and APS for July showing the underlying data / calculations used to show they passed these SLAs".

The calculation of transaction time service levels for OBCS, APS and EPOSS is specified in Schedules H08, E08 and F08 respectively. These in turn refer to the Benchmark Counter Transaction Times documents CR/PRP/011, CR/PRP/013 and CR/PRP/014 all at version 1 and agreed with POCL as Contract Controlled Documents.

These documents state that, with the exception of OBCS foreign transactions, all other transactions times are to be based on the set of benchmark figures contained in each document and not based on actual transaction time measurement. In all cases the weighted mean transaction time of these benchmark figures is within the target transaction time (see 2.1) and accordingly the Service Review Book for July and previous months will show this as achieved using a green entry against the various Transaction Services.

5.2.1 Benchmark Transaction time summaries

The following is reproduced from the summaries of the above transaction time documents.

Service	Mean Benchmark transaction time	Mean Maximum transaction time
OBCS	26.02 secs	27.01 secs
APS	18.80 secs	20.27 secs

EPOSS	22.90 secs	23.13 secs
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5.2.2 OBCS transaction times

In the case of OBCS foreign transactions, comprising 6% of the total OBCS transactions, the variable element is the ISDN communications time. The measured benchmark figure for this is 5.4 seconds.

The actual mean time for the last three months, and the corresponding actual mean transaction times are: -

Month	ISDN time	Actual Mean Transaction time	Target Mean Transaction time
June	5.39	26.02	27.01
July	5.66	26.03	27.01
August	4.71	25.98	27.01

5.2.3 Fallback transactions

The service level calculations for all of the transaction types described in the Service Level Schedules also have to be adjusted by the number of transactions conducted in various forms of fallback. This will take place when the individual fallback transaction time figures have been agreed with POCL and this activity is being managed by Jan Ambrose (ICL Pathway) and Pavittar Sandhu (POCL). A proposal from ICL Pathway was made on 3/8/99 and final comments are awaited from POCL.

When these figures are agreed and the relevant Contract Schedules updated, the SLA calculations will then take account of any adjustments required for fallback.

At present, however, transaction volumes are not required in order to calculate the transaction time SLAs because the values of the fallback transaction times have not yet been agreed.

5.3 Transaction Volumes

POCL has expressed concerns over the ability of ICL Pathway to calculate transaction volumes, particularly in the context of transaction time SLA calculations. The above explanation covers why transaction volumes are not currently required.

The particular meeting referred to in the AI (9/7/99 - Liz Blackburn, Graham Wingrove et al.) was not concerned with overall transaction counting, but with particular aspects of EPOSS transaction aggregation.

Transaction volumes for APS, OBCS and EPOSS are provided as part of the vital statistics information available on the ICL Pathway Customer Services Web page.

These overall totals are broken down into the transaction types required by the Service Level Contract Schedules and will be used in future SLA calculations, subject to agreement of the fallback times. Once this is in place POCL may request a detailed breakdown of the transaction volumes that underpin entries in the Service Review Book.

5.3.1 Service Level Reporting Cycle (Action Point 3)

In response to a request from POCL, ICL Pathway will provide a document by 31 October 1999 describing the data collection and SLA reporting cycle. It is intended that the scope of this document will cover:

- What data is collected from the counters / helpdesks etc, and where it resides
- How this data is used in the calculation of SLA performance measures – the interaction between Contract Administrator and the application of the formulas to calculate SLA achievement.
- How this data is reported within the Service Level Agreement Monitor (SLAM) and the outputs delivered to POCL.

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No.	Action	Target completion date	Responsibility
1	Complete agreement to Fallback Transaction times	End September	Jan Ambrose (ICL Pathway) / Pavittar Sandhu (POCL)
2.	Review and agree improvements to Ad-Hoc Request process	End September	Richard Brunskill (ICL Pathway) / Dave McLaughlin (POCL)
3.	Joint MIS workshop to agree POCL requirements	Prior to end October	Richard Brunskill and Jayne Widdowson (POCL)
4.	Provide " data structure definition" document	By 31/10/99	Richard Brunskill
5.	Provide "Service Level Reporting Cycle" document	By 31/10/99	Richard Brunskill / Peter Robinson (ICL Pathway)