

Post-Acceptance TIP Incident Status Report –18/11/99

TIP INCIDENT DESCRIPTIONS

TIP reference	CA Week	Outlets	Details
PinICL			
HSN call reference			
932	25	1	No Primary Mappings provided in Reference Data for Southend Bus/Rail Tickets.
9909210308	29966 30043		It was discovered on 23rd September that there were no primary mappings present in reference data for these products which had been on the system for many months (from MOT). Being local products, the absence had not affected system operation until roll-out caused outlets selling those products to come on-line. Absence of primary mappings causes products to fail to come to account at the outlet. A detailed check of all product reference data revealed a total of 39 for which mappings were missing. The missing reference data was provided on 24 th September.
934	26	85	Reference Data Error on product 196. On September 7th POCL sent a large number (c 550) of “no-change” Ref Data changes which were sent to POCL OSG on 16 th September and were sent down to counters on the 22 nd . One of the items updated by these changes was item 196 (Giro Change Giving), and this had the effect of bringing into use an accounting sense change sent by POCL on June 15 th as a change to Item Transaction Mode zero. [As no regression testing was performed by either POCL or Pathway the problem was not noticed until the changes went live on 22 nd September.] The 15 th June change had been held up by Pathway with a query as to the reason for the change, and a request for a corresponding change to product 197. The effect of the change to product 196 Session Effect, without the planned corresponding changes to product 197 was to introduce inconsistency between products 196 and 197 when transacted by Horizon offices, resulting in the transaction volumes of the two products being netted instead of added on line 9015 of the Cash Account. When first reported the issue was ascribed to TIP having actioned the related change to product 197 issued by POCL RDP on the 23 rd September. This delayed diagnosis of the real cause. There was no fault in the Horizon software. The incident was caused by the application of POCL reference data which was inconsistent. The transaction stream sent to TIP was consistent with the cash accounts produced in the outlets but, as TIP construct their cash account without reference to the Mode Zero accounting sense, they have been reporting a difference on line 9015 since the change in Reference Data. Reference Data to cause consistent accounting between products 196 and 197 was delivered on Wednesday 20 th October, along with an associated change to the MiECCO migration agent to maintain consistency of the sign of migrated transactions.

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935 9909290396	27 30493	1	<p>Negative sign on txn numbers. This was caused by an error in the migration agent which only shows up when there is an ECCO disc failure which fails to migrate or there is a comms failure between outlet and data centre during migration. After rejection of the file by TIP action was taken to remove the –ve signs from the numbers. However the numbers had previously been truncated to a fixed length, and the presence of a leading negative sign had caused loss of the final digit. The numbers generated by removing the –ve signs were in some cases, because of loss of the last digit, duplicate numbers, which lead to the erroneous conclusion that there were duplicate transactions in the file re-sent to TIP (and rejected by TIP as having duplicate records, see 937). These transactions were deleted from the file and the file re-re-sent.</p> <p>The effect of this has been that 8 migrated AP transactions, for one outlet, were not been sent electronically to TIP, and have subsequently been sent via a RED report.</p> <p>The agent bug is now understood and will be fixed. It cannot be fixed before Nov 5th, when roll out ceases for Christmas, but will be fixed before roll-out recommences in January. (CP2186)</p>
936 9909300542	26	2	<p>No Primary Mappings provided in Reference Data See 932</p>
937 9909300555	27 1		<p>Duplicate records in file transferred. See 935 above.</p>
938 9909300543	27 1 30493		<p>Negative sign on Txn Numbers – see 935</p>
939 9910050085	28	1	<p>Invalid ITMs,</p> <ol style="list-style-type: none"> 1. ECCO Migrated remittance where a product has failed to be mapped to an equivalent Horizon product and has therefore been migrated as 'Cash' in accordance with POCL's instructions on the handling of 'contingency' products at migration. 2. ECCO Migrated discrepancy transaction carried out in ECCO as a 'Serve Customer' transaction.
940 9910070592	27 30919	3	<p>Reversal of the settlement of a stock adjustment.</p> <p>The set of rules agreed with TIP for signage adjustments in the host before transactions are sent to TIP was incomplete, in that it did not provide for settlement of existing reversals of stock adjustments. TIP therefore calculated their values in a manner inconsistent with Horizon. This had no business impact at outlets, and the outlet cash account was correct. Rule extension to cover all circumstances went live on 22.10.99 .</p>
941 9910070586	27	1	<p>Reversal of the settlement of a stock adjustment. See 940</p>
942 9910070616	27	270	<p>Reference data Error on product 196. See 934 (A duplicate entry has been created for the 2 occurrences within the AI monitoring period.)</p>
943 9910070597	27 30923	1	<p>Migration of erroneous ECCO Transfer transaction.</p> <p>Cheques remmed out of one SU, but remmed into the other as cash caused compensating differences on the cash account between Cash and Cheques</p>

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944 9910070604	27 30917	1 Migration of erroneous ECCO Transfer transactions. <i>Cheques for £1555.00 remmed out of one SU, but remmed into the other as cash; Cash of £216.25 remmed out but remmed in as Vouchers (Product 4), caused compensating differences on the cash account between Cash and Cheques. Items remmed out of one stock unit as Product 763 (self adhesive roll 2nd x100), remmed in to the receiving stock unit as Product 2869 (special 2nd class stamps).</i>
945 99100706- 06/14/19/24/2 6/27/28/29/31 /36/37/39	27 12	No Primary Mappings provided in Reference Data See 932
942 9910070616	27 2 31033	Reference data Error on product 196. See 934 (Duplicate entry created for 2 occurrences within AI monitoring period)
946 9910130571	28 367 31302	Reference Data Error on product 196 See 934
948 9910130584	n/a	The reported Invalid ITM in this call was not, in fact, invalid. An error in TIP's processing of reference data changes caused this incident to be reported. Call has now been closed.
949 9910130849	28 31315	1 Cash Account received by TIP with zero values in all lines. This is unrelated to previous incidents involving other missing CAC records. In this case the transaction summary data used to construct the cash account was present at the outlet but the CAC records (constructed during cash account trial) do not exist. This means that the trial cash account would also have been printed with blank information, although there is no record of a helpdesk call from the outlet concerned on 6 th or 7 th October and the final cash account appears to have been printed with content. Detailed investigations continue.
950 9910130596	28 31277	1 Reversal of the settlement of a stock adjustment. See 940/941
951 9910130623	28 31304	1 Incorrect recording of Stock Transfer Transactions On the evening of 30 th September 1999 a release of reference data was made which included the 'end-dating' of all the Pathway Mode Parameter reference data and the 'Pathway Product' reference data (the Pathway Products are used to settle Transfers/Remittances/Parcel Traffic/Non-Accounting Data sessions). As a result, transfer out transactions carried out from 1 st October to 4 th October (when the reference data was re-instated) were settled against 'Cash' and carried none of the attributes necessary to cause the transactions to report to the 'Transfers OUT' line on the balance report. Effectively these transactions achieved a stock adjustment (down) of the transferred item(s). When these transfer sessions were received into the destination stock units, the system went through the process of inserting a negative sign into the values for each transaction in the session (stock transfers out can only ever be positive values in Horizon) and adding the attributes to cause the transactions to report to the 'Transfer IN' line of the balance report. Because the original Transfer Out settlement had been recorded erroneously as 'Cash', and the transaction already contained a negative value, the insertion of the negative sign into the Cash transaction (the system did not recognise that this was the settlement rather than another item being transferred) caused the value for the settlement transaction to be recorded with two negative signs (e.g. - -1000.00). The effects of this problem were as follows:

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		<ol style="list-style-type: none"> 1. The TPS harvester rejected the transactions with double negatives as being invalid; 2. The EPOSS processes rejected the double negative transactions; 3. The sending Stock Unit still retained the overall value of the transfer (as part of the Cash holding) but the receiving stock unit correctly showed the transfer in against the correct products with no compensating reduction in Cash (since the double negative settlement was ignored). At this point, the office was now out of balance. <p>As soon as Pathway were alerted to the TPS Harvester rejections a plan was put in place to identify, correct and re-insert the faulty records in order to restore the state of balance at the affected outlets. This correctional activity took the form of replacing the faulty double negative signs on the Transfer IN Cash Settlement transactions with a positive sign, thereby generating a Cash reduction to offset the previous increase in stock. Following this action, each of the stock units affected by either the transfer in or the transfer out were in the position of holding compensating losses and gains. These could have been dealt with at the outlet by adjusting the stock in each of the affected stock units and then re-entering the failed transfers. The correctional transactions inserted by Pathway also ensured that the 'Transfers IN' line of the balance report was reduced to compensate for the correction and retain the Stock Unit Balance. The effect of these events on the Cash Account in CAP 28 was as follows:</p> <ol style="list-style-type: none"> 1. The lines on Table 5 for Cash and Stock were calculated from the stock declared for each stock unit, plus the transfers in and out of the stock units (this the normal process for Cash Account production) 2. Because the original transfers out did not contain the attributes to cause the transaction to be treated as a transfer out for balancing purposes, only the transfer IN transactions (including the Pathway correctional transactions) were added to the Cash and Stock lines; 3. Adding only the transfer IN values caused the Cash Account stock level for a product to be increased by the value of the transfers in and the Cash level to be decreased by the same amount (from the corrected Cash settlement transaction), appearing therefore as a compensating adjustment. 4. Receipts and Payments totals remained equal.
952 9910130723	28 31310	1 Incorrect recording of Stock Transfer Transactions See 951 above
953 9910130699	28 31308	1 Incorrect recording of Stock Transfer Transactions See 951 above
954 9910130819	28 31312	3 Incorrect recording of Stock Transfer Transactions See 951 above
955 9910130841	28 31316	1 Reversal of the settlement of a stock adjustment See 940
956 9910130683	28 31306	1 Incorrect recording of Stock Transfer Transactions See 951 above
957 9910130669	28 31305	21 Incorrect recording of Stock Transfer Transactions See 951 above

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958 9910130798	28 31311	2	<p>Incorrect recording of Stock Transfer Transactions See 951 above for a general description of the problems caused by transfers between 1st and 4th October.</p> <p>In a small number of outlets (c. 8) the correctional transactions inserted by Pathway on the evening of 5th October arrived at the outlet after some stock units which had transferred IN products from the faulty transfer sessions had already rolled over the stock unit into CAP 29. These stock units would have appeared to balance normally but would have caused the Receipts and Payments on the Cash Account to have been different. In this particular office (006329) 3 stock units rolled over during the day on 5.10.99 and these stock units contained a total of £18,620.00 of faulty transfer transactions. Because the declared stock levels in the office were then inflated by this amount and because the Transfer IN values were then further added to the Table 5 values (see explanation against 951 above) this resulted in the office reporting £37,240.00 difference between Receipts and Payments (the other £20.00 difference reported by TIP was due to a transfer transaction for that amount (not normally passed to TIP) being recorded with a 'null' mode which was subsequently modified to 'Serve Customer' and forwarded to TIP).</p>
959 9910130709	28 31307	1	<p>Incorrect recording of Stock Transfer Transactions See 951 above</p>
960 9910130716	28 31309	1	<p>Incorrect recording of Stock Transfer Transactions See 951 above</p>
961 9910150098	29 31417	1	<p>Missing Cash Account records because of null Cash Account id. Similar to TIP 916. The diagnostic version of software to trap and fix cases where the Cash Account Id was being written as a 'null' value failed to trap this occurrence. The code has been carefully examined and it has been discovered that it was possible that the Cash Account Id had been partially formed in attribute grammar and contained only the attribute grammar character that denotes the start of an attribute – the '<' symbol. The presence of this character caused the diagnostic software to believe that the Id was 'not null' but when the value was passed to Riposte for committal to the message store, Riposte ignores a single '<' character which is not matched by a '>' character and therefore wrote a null value against the attribute for the Cash Account Id.</p> <p>An improved version of the diagnostic software has been prepared and will be distributed to the Live Offices from 29.10.99. (WVP6068) N/A to AI 376 - no cash account was sent. (AI378)</p>
962 9910200585	29	417	<p>Reference Data Error on product 196 see 934</p>

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963 9910200570	29 31713	18	<p>Cash Account reconciliation problem - under investigation This has been investigated and the 18 affected outlets were subject to one of three problems:</p> <p>The majority (14) were the result of TPS generating the wrong sign on stock adjustment reversal transactions: (confirmed at Outlets 025511, 162116, 173511, 177704, 257523, 265611, 349704, 358329, 267511; identical symptoms at Outlets 010511, 081116, 153611, 286329, 302523 for which no message stores were available at the time of diagnosis). These are duplicate occurrences of the problem identified in TIP 940.</p> <p>3 were associated with a known APS problem, where a reversal fails to correctly record the mode of the original transaction (Outlets 002704, 006329, 008323). Work is in hand to identify and fix the root cause.</p> <p>The last was an apparent cash account misbalance, (Outlet 162504). This incident has now been traced to an erroneous stock unit transfer in CAP 28 for a value of £10 (see also TIP 965 below).</p>
965 9910200639	29 31712	6	<p>Apparent discrepancy due to TIP basing calculation on incorrect bought forwards figure. CAP 29 Consequence of the CAP 28 Transfer Failures For a general explanation of the transfer failures in CAP 28 see 951 above.</p> <p>As a result of the incorrect reporting of stock levels on the CAP 28 Cash Account for products affected by the stock transfer problems in CAP 28, the starting figures used by TIP to calculate the values for the CAP 29 Cash Account were incorrect. The result is that there were apparent discrepancies on the week 29 cash account despite there being no errors in the week 29 transaction stream or cash account.</p>
966 9910200598	29 31907	27	<p>Apparent discrepancy due to TIP basing calculation on incorrect bought forwards figure. As for 965 above. This has been confirmed for 18 outlets, checking continues on the remaining 9.</p>
967 9910200573	29 31884	4	<p>Apparent discrepancy due to TIP basing calculation on incorrect bought forwards figure. As for 965 above.</p>
968 9910200623	29 31908	1	CAP 29 Consequence of the CAP 28 Transfer Failures - See 951 above
969 9910200613	29 31714	1	<p>CAP 29 Consequence of the CAP 28 Transfer Failures For a general explanation of the transfer failures in CAP 28 see 951 above.</p>
970 9910200585	29 31906	7	<p>Reference Data Error on Product 196 See 934</p>
971 991026033	30 388		<p>Reference Data Error on Product 196 See 934</p>
972 9910260379	30 32090	2	<p>Migration of erroneous ECCO Transfer transactions FAD 010704 - Cheques transferred between Stock Units D1 and BM in the ECCO+ system for £935.00. This value was transferred in to BM as cash, therefore generating the compensating discrepancy reported by TIP. FAD 011323 - Three separate transfers in the ECCO system between stock units BM and AA where the value was transferred out as cheques and in as Cash. The transaction values were £248.85, £2049.66 and £221.44. See 943, 944</p>

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973 9910260358	30 21 32099	<p>Reversal of the settlement of a stock adjustment. As 940</p> <p>On further investigation an additional problem, common with one under 963, was identified. Current status: Stock adjustment problem (as 963 and 940)- Outlets: 0145041, 1491164, 1551167, 1593064, 1793233, 2393069, 2576112, 2665115, 2836114, 2865238, 2933233, 3053237, 4363299. The fix (WP6101) was applied (TPS host) on 22/10/99, i.e. later than the end of CAP 30.</p> <p>Outlet 390329X also had a SAN reversal (£600) but this does match the TIP reported discrepancy – further investigation is needed.</p> <p>There was one occurrence of the APS problem identified above, where the incorrect original TM was recorded for an APS reversal (outlet 2627043)</p> <p>The error in outlets 2555239, 2863294, 3025233 was related to 951 see above.</p> <p>The occurrence at outlet 0136425 was due to an ECCO transfer migration.</p> <p>The reported occurrences at following outlets are still under investigation: 1625047, 171130X</p>
974 9910260368	30 1 32100	<p>Under investigation</p> <p>Compensating cash account differences on three lines (investigating with 972)</p>
975 9910260384	30 1 32102	<p>Migration of erroneous ECCO Transfer transactions</p> <p>Prior to migration, a transfer of £2.00 of Product 766 (TV Licence Savings Stamps) was made from Stock Unit 04 to Stock Unit PC and a further transfer of £3.38 was also made against Product 21 (Stamps). The transfer in to Stock Unit PC was recorded as a transfer in of £5.38 of Stamps. No separate transfer in of the £2.00 of TV Licence Stamps was made. No fault in Horizon system.</p>
976 9911010686	26 4 32552	<p>Missing primary data mapping for Southend bus/rail tickets. See 932</p>
977 9910290301	N/A 32335	<p>There is no cash a/c inconsistency. The outlets from which multiple subfiles were received were entered into the Horizon automated system as a result of previous BES (help desk authorised) foreign encashments. When BES was running an EOD Marker was generated (at the correspondence server) to enable BES Help Desk transactions to be harvested to TPS. BES stopped running on 10/7/99 (when we upgraded to LT2). When an outlet is automated, the first time EOD runs it searched for any previous EOD Markers and generates EOD events for any "missing" days. As a result of this it generates EOD markers for each day since the Foreign Encashment. The problem is now not occurring, as rollout has stopped. Before Rollout re-commences the old foreign encashments will have been archived off the correspondence server, and so the problem will not re-occur.</p>
978 9910290307	31 1 32330	<p>Missing CAC records following STX (PINICL 31417 /WP6068) provides for diagnostics; distribution started 29/11, 90% complete at 05/11 (see 961) N/A to AI 376 (AI378)</p>
979 9910290299	31 2 32336	<p>Missing CAC records following STX (See 961) N/A to AI 376 (AI378)</p>
980		Not used
981 9911020537	31 5 32645	<p>Re-occurrences of ref data error on product 196 See 934. (PC32090 refers)</p>
982 9911020536	31 1 32644	<p>Likely to be incorrect recording of stock unit transfer in ECCO. Investigation continues.</p>

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983 9911020555	31 32649	1	The problem appears to have been caused by a Transfer Out transaction for a value of £2441.00 being recorded in the same 'session' as discrepancy transactions (Mode:DDN). The settlement transaction for the session was recorded as Mode:DDN and would have been sent to TIP, the transfer out transaction was recorded as Mode:TO and would therefore not have been sent to TIP, causing TIP's view of the value of Cash to differ from that perceived at the outlet. Investigation has shown that it is possible to start a transfer out, not complete it, suspend the session and then enter the balancing process (which will commit any discrepancies arising from declarations made). Investigations are continuing to determine whether this would then cause the suspended transfer out transaction(s) to also be committed.
984 9911020545	31 32648	18	This incident is the result of an update of the persistent object containing the revised Cash Account mappings for product 21 failing to update the persistent object index at the counter. This was caused by a fault in Riposte which was fixed in update 22, now down at counters. There now needs to be an exercise to rebuild the corrupted indexes on the affected counters, which is in progress.
985 9911020529	31 32643	1	Reported unrecognised item \ transaction mode combination: (184\8). Under investigation
986 9911020258	30 32634	1	Cash Account not received for FAD 476611; office not reported as non-pollled N/A to AI 376 (AI378)
987 9911020528	31 32647	1	APS problem, where a reversal fails to correctly record the mode of the original transaction See 963
988 9911040231	32 32769	1	Negative sign on transaction numbers See 935
989 9911040243	31 32827	2	This appears to have been the result of an update of the persistent object containing the revised Cash Account mappings for product 21 failing to update the persistent object index at the counter.
990 9911040390	31 32828	1	See 984
991 9911040417	32 32779	1	Root Cause - Negative sign on transaction numbers (See 935). In this case whilst correcting the file (arising from incident 988) the elimination of the –ve sign results in dropping the least significant digit in the 4 char transaction id field which can cause a duplicate.
992 9911080659	32 33058	1	Recovery Mode transactions against product 2289 (an APS product) mapped correctly to line 0009. TIP mapped these (incorrectly) to line 0059.
993 9911080646	32 33059	4	Awaiting details
994 9911080664	32 32980	6	Apparent discrepancy due to TIP basing calculation on incorrect bought forwards figure. Problem associated with revaluation of Euro stamps. (see 984) The transactions and Cash Account for week 32 are correct. The apparent discrepancy reported by TIP is due to TIP using the incorrect cash account sent by Pathway in week 31 as the starting position for their reconciliation, thus effectively reporting for a second time the original incident. Fad 211328 is knock on from 990;465329, 338523,412523 from 984; 467329, 173328 from 989.
995 9911080370	32 33051	1	Non polled outlet (FAD399420) Not relevant to AI376
996 9911100279	32 33100	1	TIP error. See 992
997 9911120504	32 33265	1	

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998 9911120507	33 2 33266	
999 9911120518	33 1 33268 (33333)	
1000 9911120527	33 1 33269	
1001 9911120533	33 1 33271	
1002 9911120536	33 1 33272	
1003 9911120543	33 1 33273	

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CAUSES OF CASH ACCOUNT DISCREPANCIES

	Cause	First or only ref	No of Cash Accounts	Identifying part of Additional Reconciliation	CAD?	Ref Data?
1.						
2.	Reference Data Error on product 196	934	1190 (TIP942 >)	N/A - not Cash Account Discrepancy	N	Y
3.	Migration of erroneous ECCO transfer transaction	943	3 (TIP972->)	N/A - not Cash Account Discrepancy But will be detected by weekly CA check at counter	N	N
4.	Not Pathway error	948		N/A - Not Cash Account Discrepancy	N	N
5.	Cash account with zero values	949	1	CA weekly reconciliation	Y	N
6.	Reversal of the settlement of a stock adjustment	940	30 (TIP950->)	N/A - Not Cash Account Discrepancy (error in TIP calculation of CA)	N	N
7.	Incorrect recording of stock transfer transactions (and consequences)	951	72	Daily harvester activity	Y	Y
8.	Missing cash account because of null cash account ID	961	2	Weekly CA check at counter	Y	N
9.	APS reversal txns with missing O-mode (other items dealt with under 940 or 951)	963	5	under investigation		
10.	Transfer Out transaction within a DDN session	983	1	Weekly control total check on CA	Y	N
11.	Product incorrectly mapped by TIP	992	2	N/A no error in Horizon	N	N
	Other under investigation / not categorised		?			