Sybase vs Oracle: Scalar Subquery & Inline View

Query	Sybase									Oracle							
	Test1	Test2	Test3	Test4	Test5	Avg	Pct	Pct	Pct	Test1	Test2	Test3	Test4	Test5	Avg	Pct	Pct
1 Subquery COUNT	1.160	1.150	1.170	1.153	1.160	1.159			32.9%	3.600	3.500	3.690	3.390	3.430	3.522		304.0%
3 InlineView COUNT	1.593	1.556	1.583	1.593	1.553	1.576	36.0%		27.7%	5.260	5.300	6.140	5.590	6.100	5.678	61.2%	360.4%
3 InlineView COUNT Improved	1.183	1.173	1.190	1.180	1.183	1.182	2.0%										480.5%
1 Subquery SUM	2.173	2.153	2.163	2.153	2.173	2.163		86.7%		*(Abandoned at 120 mins)*							
3 InlineView SUM	3.033	2.933	3.033	2.933	3.013	2.989	38.2%	158.0%	3.8%	79.00	79.00				79.00		2,643.0%
3 InlineView SUM Improved	2.183	2.180	2.183	2.143	2.143	2.166	0.2%	87.0%									3,646.6%
Configuration	Sybase ASE 15.0.3 with 680MB DataCache									Oracle 10.2.0.3.0							
"O/S"	On WindowsXP 1.0GB Allocated									On WindowsServer (details not provided, massive o/s cache)							
	On Parallels 3.0, on MacOS 10.4.11 (Demo system)																
Machine	Intel Core Duo 2.16GHz									Unknown							
Tables	REF_Customer		1000 rows; Random Customers							Same as Sybase side							
	CustomerTransaction		2M rows; 1K Credits & 1K Debits per Customer														
	CustomerTransaction_2		2M rows; 1K Credits & 1K Debits per Customer														
	All rows padded to 250B, 8 rows per page																
Indices	2 + 1 + 1									1 + 1 + 1 (Not used: Tablescan)							
Result Set (Scalar Data Points)	1000 Customers with COUNT/SUM(Credit/Debit)									Same as Sybase side							
	2 Scalar data points per row; 1000 source rows per Scalar data point									Same as Sybase side							
Sybase Note	We are testing Query Processing, Logical I/O; not Physical I/O																
	Idle server; 2 x Engines; Parallelism Off; 1 Engine used																
	Single Client & Server on same system																
	Improved = Sybase side only; Code Improved: Subquery fat Join & GROUP BY replaced with Subquery.																
Note																	

a. Oracle figures *recorded* in seconds; Sybase figures *recorded* in millisecs; all figures are seconds

b. Row counts now fixed up, they are identical; Oracle Indices are suspect (Tablescan but Tony says it is "normal")

c. Table populations are identical. But the disk space used (488MB per transaction table) does not match the Oracle side.

d. Although the physical tables & internal query processing are closer, they are **not close enough** to be comparable

e. Pink/Blue Percentage *column* uses the yellow *cells* as base: it compares different flavours of the test, within each product

f. Green Percentage *column* uses the respective *cell* of the other product as base: it compares the products, per test

g. All code used on the Sybase side is located in the same directory as this PDF.

h. Although only one transaction table is required, separate tables (the second a copy) were used on the Oracle side. I downgraded my side to suit.