TALLY CLERK
LOAD VOLUME SCANNERS

www.tallyclerk.com

The Tally Clerk Scanner as a Management Tool

TallyClerk monitoring of product on and off site gives you a powerful management tool that has not been available until now.

Relating actual measured volumes received to the invoiced amounts and tracking the volumes used to each site via the TallyClerk docketing system makes for good management.

In addition to simply measuring load volumes, the TallyClerk scanner can be configured to collect load details for each load measured. The most commonly collected details include product type, customer, supplier, job or order number. These details are recorded along with load measurement records in daily log files that can be downloaded for analysis and reporting.

TallyClerk provides software for period report generation or for preparing records for exporting to other systems such as spreadsheets, cashbooks, invoice generation, or databases. The TallyClerk software utility provides tools for selecting report periods (e.g. daily, weekly, monthly) and filtering record data to produce different kinds of reports. Typical reports include:

- Daily, weekly or monthly totals of all product measured
- Customer reports listing total product sold to one customer
- Supplier reports listing total product delivered by one supplier
- Product reports listing movements of a particular product
- Vehicle reports listing loads for a single truck or carrier and turn-around times
- Job reports listing all product movement on a particular job

The ease of analysis and reporting with the TallyClerk system can simplify and improve management and engineering tasks such as generating invoices, reconciling invoices received with supplied material or matching material shifted to survey quantities.

Uncertainty and discrepancy in load volumes

To buy a box of a dozen eggs at the supermarket and find it only had eleven in it would be unacceptable. But ask for 8m^3 of stones and chances are you will get the operator's nearest, maybe 8.0, maybe 7.8 or 8.3. Or you will be asked to buy in tons and convert it back – the source of many arguments in the Civil Construction industry. As the purchaser of the product you should be able to pay in the same measure as you ordered. Any conversions the supplier may require for their benefit should be at their risk.

Generally it has been found using TallyClerk scanners that even the most experienced of operators can easily be 10-15 % out in their guesstimates - the sort of percentages errors that an accountant could get fired for!

A case in point is a job carried out for Hamilton City Council. A partly formed motorway that had been started some 20 years ago had attracted some unsolicited dumping of earth fill and also been used by council to stockpile unsuitable material from a nearby council contract. During the later part of 2006 Council let a contract to form part of the Resolution Drive motorway, which necessitated the removal of some of the stockpiled earth further up the road reserve, at the same time added to with some additional surplus material from the new construction. During construction some material was also borrowed from the heaps stacked along the side of the road reserve over a 400m length. Once again unsolicited dumping by outside parties occurred. HCC decided to cart all the material off site to the Horotui Land fill and use it as capping material.

From a previous survey of the heaps and an estimate of what had been dumped by others there was around 18-20,000m^3 to shift. A cubic metre measure truck rate was established and the whole job was done through a TallyClerk scanner set up on site. The actual amount of material shifted to clear the site was 15,414m^3. On this occasion the trucks carting out were also scanned on their return and any product traveling the round trip by being stuck in the trays was deducted from the daily totals. A daily summary sheet as was sent to council at the conclusion of each day is enclosed.

It is also found that the presence of a TallyClerk scanner on site has the effect of increasing the size of the loads – even if the scanner is only used for random checks and not for measuring every load. The knowledge that they might be measured encourages suppliers to be more accurate with their load volumes, or even a bit on the generous side. The fair trading option is to measure all loads and pay for actual quantities supplied.

Settlement of material during transport.

TallyClerk scanners have been used on numerous occasions to resolve the age old problem of "I had 20m^3 on when I loaded, but it must have sunk down to this X amount you measured" or "but you stood all over my load when you measured it and have squashed it down". The simple answer is to tip it off and reload it and then measure it again. Then everyone can pretend to be at the point of loading.
The following are examples of 3 truck and trailer units of the same configuration carrying loads from Porritt Sand pit near Cambridge back to a Hamilton subdivision and being measured at both points. Weather was showery and the product was "run of the pit" sand (coarse)

	Truck 1	**Truck 2**	**Truck 3**
Porritt Sand (pick-up)	19.7	21.5	19.9
West Construction (drop-off)	18.9	20.6	19.2
Percentage Settlement in transit	4.06%	4.19%	3.52%

As you can see the settlement is fairly uniform and if the material were to be off-loaded, reloaded and re-scanned, volumes would be as at the original point of loading.

The following example is the same journey but the truck and trailer unit was turned at 5.5 km to return to the pit and re-scanned after 11km. The truck then carried on to the worksite 22km away and was scanned again, then sent on another 22km round trip and scanned one more time. As shown in the results most settlement occurs in the first part of the trip and very little after a 20km distance.

Load (m^3)	**% settlement**	**distance travelled**
22.5	0.0%	0km
21.9	2.7%	11km
21.3	2.7%	22km
21.2	0.5%	22km
	Total 5.8%	

Another scenario we know about is two owners of TallyClerk scanners that trade between each other. Their depots are some 30km distance apart. One processes a garden mulch product that is sold to the other. A load that measures around 52.0m^3 at the point of loading will be around 48.5 – 49.0m^3 at the drop off. The two astute business people involved have concluded after unloading and reloading then rescanning numerous loads, that the fair conclusion is that the unloaded amount equates to the amount originally loaded (and measured at the point of loading) and this is the quantity that forms the basis for payment, because that is what the purchaser has on the ground on site after drop off.