WAY FORWARD TECHNOLOGIES
LIMITED

WFT

System 3000 Landfill

Please Note

This Product Outline for System 3000 has been prepared by **Way Forward Technologies.**

Overview

Over the past 20 years Way Forward Technologies Limited has been developing Microsoft Windows based Weigh Bridge Control systems using advanced development tools and the ACCESS database. Way Forward was the first company in New Zealand to use this concept, with Touch-Screen technology, to assist unattended Weighbridge users. Indications are we were the first in the world with this system and have one of the most advanced Weighbridge Control Systems available.

Way Forward Technologies Ltd has enjoyed considerable success with both the Touch Weigh and Landfill systems. A considerable amount of experience has been accumulated in these fields, all of which has been used to benefit our many customers many of whom provided valuable advice during development stages.

Design

SYSTEM 3000 is written in Microsoft Visual BASIC 6.0 and Microsoft ACCESS.

The system is written in two distinct modules, Host and Remote. The Host module provides such things as Data Maintenance and basic reporting facilities. The Remote module provides the weighbridge operator interface, end of day totalling and docket and receipt production. A customer may require only one copy of the Host module but will require a copy of the remote module for each landfill site or transfer station.

The system has an option for automatic transfer of static data (customer, product file etc) from the Host to the Remote(s). The Transfer of dynamic data (transactions) is from the Remote(s) to the Host.

Minimum System Requirements for Software

Pentium Dual Core Processor
4GB RAM
200GB Hard Disk
1 Spare Serial Port
Windows XP or later
A Clean Power Supply

Recommended

ADSL Modem
Teamviewer Access or similar
Uninterrupted Power Supply
Quality phone line

Way Forward Technologies Limited

will supply

Microsoft Access / MSDE Run-time Licence
Microsoft Visual Basic Run-time Environment
      - Full version of Microsoft Access is recommended
WFT Access Database Management System
Visual Basic Operator environment

In addition specific hardware may be required depending on your site configuration.

System Functions

Weighbridge Control

System 3000 will support;
- An entry and exit weighbridge
- A single weighbridge
- No weighbridge.

Users can change between these options.

Operator Login

To use the system an operator logs in using a predetermined ID and password. This enables all weighing functions and reports, and provides a header for the cash out report.

Stored Tares

The use of "stored tares" permit drivers to weigh once, when laden, and removes the need to weigh out. Stored tares are recorded for a limited time, usually 30 days, after which the tare expires and dual weighing is required. The system notes both expired and insufficient tares.
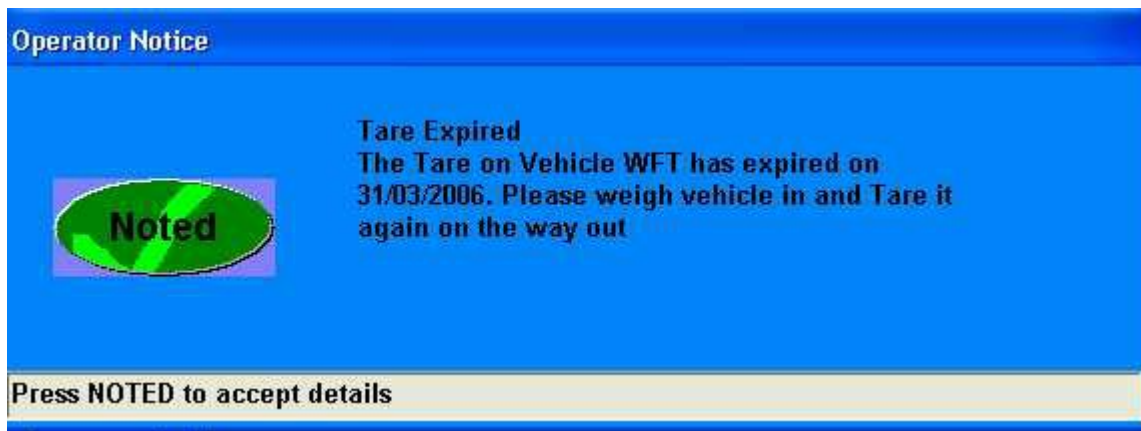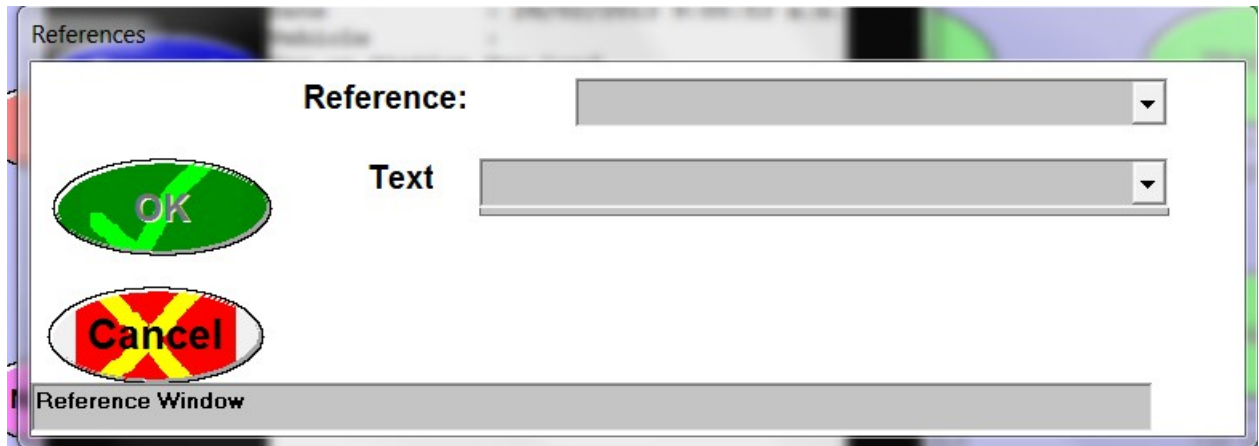

Products

Product name and details are recorded along with the Charge per Tonne, Product minimum charge, Product maximum charge, along with the option of, Charge by load. In addition information such as cubic metres and dry weigh measurement conversion is available as an option. Products can be for Domestic use, Commercial use or both.

Free fields

The option of References or user defined fields is provided. This enables additional analysis areas defined by the customer.

References are selected from a user defined list and the operator can enter the required text in the field provided. There is no logical limit to the number of references stored with each transaction. All references are printed on the docket.

In addition references can be marked as required forcing the weighbridge operator to use them on each transaction.

Commercial Weighing

The operator is prompted to enter details of the vehicle and product before accepting the transaction. The option of Manual Id allows the operator to type in vehicle fleet numbers or registrations without selecting from the stored list. A vehicle can also be assigned to a different customer.

Pending Vehicles

A complete list of Pending vehicles is available displaying all Vehicles weighed in but not yet weighed out. Is displayed on the right of the Commercial panel.

Commercial Dockets

Each commercial driver will receive a complete docket. Indicating the Date, Time, Product and weights. For commercial cash customers dockets can indicate the GST number and the words "Tax Invoice" or "Weighbridge Docket"

Domestic Receipts

For Landfills and Transfer Stations. All domestic customers will receive a receipt showing the Date, Time and vehicle type, GST Number, docket number and the charge.

Domestic Cash Up

Payment options and groups are fully configurable by the user. Monies can be grouped by 'Cash' (including Cheque and EFT-POS payments) as well as other options.

Additional features include Operator Date Selection. The Operator can now Cash Up over a several day period or within a specific time

Domestic Categories

Up to 36 Domestic vehicle categories are available, using three screens of 12 each. Icons are available as an option extra.

Quick Payment

The option to simply click on the payment type to complete the transaction.

Credit Checking

Each customer has a Credit OK flag. Set to NO this will flag the operator with a customer note indicating why the credit is refused and providing a name and number
to call.

Operator Notes

Each customer has a Note field that is displayed whenever the customer is selected. This allows the Office to pass customer specific messages to the weighbridge operator.

System Options

Barrier Arm Counting and Control

This will allow a transaction check between the Barrier arm and the number of transactions in the database. By only using software control to activate the barrier arm a count is kept. This allows a check on the number of transactions and arm movements.

Domestic Customer Fee Display

As the vehicle type is entered the customer display will show the charge. This is a verification for the customer that the charge is correct.

Pre Paid Tags

This is an option that allows customers to pay in advance for loads. The use of Dallas read-write tags allows for an amount to be paid at the payment office and then deducted at any remote site after a weighing is complete. The tags are internally secured to prevent unauthorised alteration. Each tag can store it's Id, Activation or start date and, if desired the customer details via the account system

Unattended Site

An after hours module is available to support Landfills and Transfer Stations having commercial customers who require to weigh out of normal business hours. Each customer is issued with a Dallas Touch-Key allowing access to the site. The database will allocate each tag to a customer. The driver is required to weigh in and the product he is carrying is a default after hours Product. If stored tares are in use he will not be required to weigh out. After unloading the driver could then leave or, if required, weigh out. Traffic control is via traffic lights on the inward and exit lanes.

System Auditing

System 3000 has two distinct logging methods.

RMCALOG

Remote Monitoring and Control monitors Software and communications errors. By examining this log Way Forward Technologies support staff can quickly pin-point Software and some Hardware communication problems. Allowing rectification often before an Operator is aware of the problem.

TRANSLOG

Transaction Logging Transaction logging. All transactions are duplicated in a text file stored on the hard disk. From this text file our support staff can re-create transaction financial data (References are not included). This can be a valuable tool particularly after such incidents as data corruption following power spikes etc..

Data Maintenance

All data edits are logged into an Audit Log so staff who edit Customer and Transaction data can review their changes.

Host Module

Data Maintenance

Contains: Customer table
Vehicle table
Product table
Operator Logins
System details

Reports: Customer by Product
Product by Customer
Domestic Transactions
Sorted Products
Customer Vehicles

Data Editing

Look up and search facilities are available for Customers, Products and Vehicles. Operators can view vehicles and transactions directly from the Customer Edit tab.

Remote Module(s)

Weighbridge Control

Contain   Commercial Vehicle Weighing
             Updating of Stored Tares
             Domestic vehicle recording
             Transaction Storage
             Receipt printing
             Specific period Cash up

Domestic Only version available – Records Domestic Vehicles and will not do Commercial Weighing.

Sample Customer by Product report showing domestic transactions
`(NB Names deleted)

Customer - Product Weight Report - for period 1/01/90 to 12/02/99
12-Feb-99

Docket	Date Time In	Date Time Out	Vehicle Id	Weight In	Weight Out	Net Weight

GENERAL CAR

Docket	Date Time In	Date Time Out	Vehicle Id	Weight In	Weight Out	Net Weight
10016	9/02/99 12:59:25	9/02/99 12:59:25		0 Kg	0 Kg	0 Kg
10048	9/02/99 13:27:10	9/02/99 13:27:10		0 Kg	0 Kg	0 Kg
10065	11/02/99 17:30:51	11/02/99 17:30:51		0 Kg	0 Kg	0 Kg
10083	11/02/99 22:17:40	11/02/99 22:17:40		0 Kg	0 Kg	0 Kg
10089	11/02/99 22:24:50	11/02/99 22:24:50		0 Kg	0 Kg	0 Kg
10100	12/02/99 11:33:06	12/02/99 11:33:06		0 Kg	0 Kg	0 Kg
10104	12/02/99 11:45:12	12/02/99 11:45:12		0 Kg	0 Kg	0 Kg
10110	12/02/99 12:24:05	12/02/99 12:24:05		0 Kg	0 Kg	0 Kg
10112	12/02/99 12:30:50	12/02/99 12:30:50		0 Kg	0 Kg	0 Kg
10114	12/02/99 12:31:49	12/02/99 12:31:49		0 Kg	0 Kg	0 Kg
10116	12/02/99 12:32:37	12/02/99 12:32:37		0 Kg	0 Kg	0 Kg
10118	12/02/99 13:01:40	12/02/99 13:01:40		0 Kg	0 Kg	0 Kg
10120	12/02/99 13:02:30	12/02/99 13:02:30		0 Kg	0 Kg	0 Kg
10124	12/02/99 13:03:12	12/02/99 13:03:12		0 Kg	0 Kg	0 Kg
10129	12/02/99 13:04:22	12/02/99 13:04:22		0 Kg	0 Kg	0 Kg
10131	12/02/99 13:05:11	12/02/99 13:05:11		0 Kg	0 Kg	0 Kg
10135	12/02/99 13:06:05	12/02/99 13:06:05		0 Kg	0 Kg	0 Kg
10137	12/02/99 13:06:05	12/02/99 13:06:05		0 Kg	0 Kg	0 Kg
10141	12/02/99 13:06:24	12/02/99 13:06:24		0 Kg	0 Kg	0 Kg
10145	12/02/99 13:06:33	12/02/99 13:06:33		0 Kg	0 Kg	0 Kg
10149	12/02/99 13:07:20	12/02/99 13:07:20		0 Kg	0 Kg	0 Kg

1

Host Module Transaction Enquiry
(NB Customer name partially deleted)

Transactions of WAM Commercial									

Site Id: ,

In: Wednesday, 12 March 2008 10:21:10 am

Commercial Docket: 20006

Out: Wednesday, 12 March 2008 10:24:59 am

Weigh Type: Commercial

Customer Id: 46099966 '   .

Operation Mode: Attended

Vehicle Id: 107

Operator: COLIN

Transaction Lines | References

Line	Product	1st Weight	2nd Weight	Net		Unit Price	Amount
1	General Waste	9,310	7,760	1,550	Per Weight	.	

Payment Method: Account

GST:

Reference: .

Total:

Customer Detail	**Edit**	**Create Reversal**	

Record: |◄ ◄ 1 of 36149 ► ►| ►※   ▼ Filtered   Search

System parameters are easily changed and allow Maintenance options to be grouped logically.

Reference Tables			

Product Groups | Vehicle Types | Payment Methods | Transaction References

	Product Group	Group Description	Product Type	
►	Hazardous	Hazardous Waste	Weighed	▼
	Incoming	Incoming Products	Weighed	▼
	Outgoing	Outgoing Products	Weighed	▼
	Special W	Specail Waste	Weighed	▼
*			Weighed	▼

Record: |◄ ◄ 1 of 4 ► ►| ►※   ▼✗ Unfiltered   Search

Transaction Processing Flowchart

```
                    ┌──────────────┐
                    │   Vehicle    │
                    │  approaches  │
                    │  Weighbridge │
                    └──────┬───────┘
                           │
                           ▼
         No          ◇ Commercial ◇          Yes        ┌──────────────┐
  ◄──────────────────◇  Vehicle   ◇──────────────────►  │   Identify   │
                      ◇            ◇                     │  Commercial  │
                                                         │   Vehicle    │
                                                         └──────┬───────┘
                                                                │
                                                                ▼
  ┌──────────────┐                                       ┌──────────────┐
  │ Select Type  │                                       │    Select    │
  │ of Domestic  │                                       │   Product    │
  └──────┬───────┘                                       └──────┬───────┘
         │                                                      │
         │                                                      ▼
         │                                               ┌──────────────┐
         │                                               │    Weigh     │
         │                                               │    loaded    │
         │                                               │   Vehicle    │
         │                                               └──────┬───────┘
         ▼                                                      │
  ┌──────────────┐                                              ▼
  │    Print     │                              Yes      ◇  Stored  ◇
  │   Receipt    │              ◄────────────────────────◇  Tare?   ◇
  └──────┬───────┘                                             │
         │                                                     │ No
         │                                                     ▼
         │                                              ┌──────────────┐
         │                                              │    Create    │
         │                                              │   Pending    │
         │                                              │  Transaction │
         │                                              └──────┬───────┘
         ▼                                                     │
  ┌──────────┐   ┌──────────┐   ┌──────────┐   ┌──────────────┐
  │  Create  │◄──│  Print   │◄──│  Delete  │◄──│   Vehicle    │
  │Transaction│  │  Weigh   │   │ Pending  │   │  Weighs out  │
  └────┬─────┘   │  Docket  │   │Transaction│  └──────────────┘
       │         └──────────┘   └──────────┘
       ▼
  ┌──────────┐
  │ Vehicle  │
  │ Departs  │
  └──────────┘
```