Axle Weighing

JagBASIC Application

Installation and
Operation Guide

Installation:

- The JagBASIC program file "file1.bas" must be loaded into the Jaguar. In Setup, Configure JagBASIC, set Autostart to Yes.

- To terminate the program, in order to enter setup or perform other normal Jaguar operations, do the following while "Enter Scale" is displayed on the lower Jaguar display.
  Press the ESCAPE key. "Axle Setup" will be displayed on the lower Jaguar display.
  Press the SELECT key. "Exit Program" will be displayed on the lower Jaguar display.
  Press ENTER. "Password?" will be displayed on the lower Jaguar display.
  Type the password and press ENTER.
  (The original password is null. At the "Password?" prompt, just press ENTER.)
  If the password is correct, the program will terminate, returning the keypad to normal Jaguar control.

- Connect scale as Scale A, configure and calibrate as required.

- In Setup, Application Environment, Zero Operation, set the Pushbutton Zero parameters as desired.
  This determines how the zero scale process in Operation Step 2b will behave.

- The "NEW" or "OLD" I/O configuration can be selected within the program's Axle Setup.
  Connect I/O according to one of the following and be sure to select the corresponding mode in Axle Setup.

  NEW   OLD
  OUT1 Entrance Green (off for Entrance   OUT1 Entrance Red
  Red)   OUT2 Entrance Green
  OUT2 Exit Green (off for Exit Red)   OUT3 Exit Red
  OUT3 Truck on scale Alarm   OUT4 Exit Green

- Connect ticket printer to desired Com port and configure port in Setup, Configure Serial, Configure Port, Port Parameters.
  In Setup, Configure Serial, Configure Port, Add Connection, make the following connection:
  Type? Serial Out / Enter Scale#? A / Mode? Demand / Flexible Print? Template 1? Y / Templates 2-5? N / Minimum Print? N / Print Interlock? N

- In Setup, Configure Serial, Configure Template, create template 1, the ticket to be printed.

  - Use the following shared data variables to include transaction information in the templates:

	Shared Data Variable	Length	Format
Axle 1 Weight	var01	12	right justified
Axle 2 Weight *	var02	12	right justified
Axle 3 Weight *	var03	12	right justified
Axle 4 Weight *	var04	12	right justified
Axle 5 Weight *	var05	12	right justified
Axle 6 Weight *	var06	12	right justified
Axle 7 Weight *	var07	12	right justified
Axle 8 Weight *	var08	12	right justified
Axle 9 Weight *	var09	12	right justified
Axle 10 Weight *	var10	12	right justified
Axle 11 Weight *	var11	12	right justified
Gross Weight	var12	variable	
Truck ID	var13	up to 6	
Date	var14	10	mm-dd-yyyy
Time	var15	8	hh:mm:ss
"Axle 1 " text	pmt01	8	"Axle 1 "
"Axle 2 " text *	pmt02	8	"Axle 2 "
"Axle 3 " text *	pmt03	8	"Axle 3 "
"Axle 4 " text *	pmt04	8	"Axle 4 "
"Axle 5 " text *	pmt05	8	"Axle 5 "
"Axle 6 " text *	pmt06	8	"Axle 6 "
"Axle 7 " text *	pmt07	8	"Axle 7 "
"Axle 8 " text *	pmt08	8	"Axle 8 "
"Axle 9 " text *	pmt09	8	"Axle 9 "
"Axle 10 " text *	pmt10	9	"Axle 10 "
"Axle 11 " text *	pmt11	9	"Axle 11 "

  * These values will be empty (length=0) if there was no weight recorded for the axle.

- Following is a sample print and template listing of a possible Template 1.

    - First, a list of the literals used by the template:
      LIT18="Truck ID: "
      LIT19="Gross: "

    - Sample print:

        04-23-1998
        15:11:27

        Truck ID: ADW492

        Axle 1   5160
        Axle 2   2240
        Axle 3   10020
        Axle 4   6600
        Axle 5   3880
        Axle 6   11200

        Gross: 39100

        Note:
        The blank lines between Axle 6 and Gross are where Axle 7 through Axle 11's information would have been printed. Since this truck had only 6 axles, the remaining fields are blank.

- Template listing:

```
Template:  Temp 1
Location:  /ptp01

 1 A CR/LF 001
 2 /    /var14
 3 A CR/LF 001
 4 /    /var15
 5 A CR/LF 002
 6 /    /lit18
 7 /    /var13
 8 A CR/LF 002
 9 /    /pmt01
10 /    /var01 R  9
11 A CR/LF 001
12 /    /pmt02
13 /    /var02 R  9
14 A CR/LF 001
15 /    /pmt03
16 /    /var03 R  9
17 A CR/LF 001
18 /    /pmt04
19 /    /var04 R  9
20 A CR/LF 001
21 /    /pmt05
22 /    /VAR05 R  9
23 A CR/LF 001
24 /    /PMT06
25 /    /VAR06 R  9
26 A CR/LF 001
27 /    /PMT07
28 /    /VAR07 R  9
29 A CR/LF 001
30 /    /PMT08
31 /    /VAR08 R  9
32 A CR/LF 001
33 /    /PMT09
34 /    /VAR09 R  9
35 A CR/LF 001
36 /    /PMT10
37 /    /VAR10 R  8
38 A CR/LF 001
39 /    /PMT11
40 /    /VAR11 R  8
41 A CR/LF 002
42 /    /LIT19
43 /    /VAR12
44 A CR/LF 002
---End Template Data---
```

Operation:

0.   "PLEASE WAIT" will be briefly displayed on the lower Jaguar display.
        The program will check that the Jaguar's clock is running.
        If it is running, the program continues to Step 1.

        If it is not running, "SET JAGUAR TIME" will be diplayed for 3 seconds. Then, the program will
        terminate, returning the keypad to normal Jaguar control.
        To set the clock, press the MEMORY key, then press the SELECT key until the time is displayed.
        Press ENTER and enter the new time at the Hour, Minute, Seconds, and AM/PM prompts.
        (Seconds and AM/PM prompts only appear if selected time format requires them.) Press
        ESCAPE to exit.
        Go back to the time display by pressing the MEMORY key, then pressing the SELECT key until
        the time is displayed. Verify that the time is updating correctly. Press ESCAPE to exit
        The program can be restarted by pressing the Function key, then pressing the '1' key at the "Run
        Program #?" prompt.

1.   The entrance and exit traffic lights will be red.
        If gross weight is greater than the threshold, the program will continue to Step 3.
        Otherwise, the program will continue to Step 2.

2.   "Enter Scale" will be displayed on the lower Jaguar display.
        The entrance and exit traffic lights will be green.
        a)   If the gross weight exceeds the threshold, the program will go to Step 3.
        b)   If the ZERO key is pressed, a pushbutton zero operation will be performed.
        c)   If the ENTER key is pressed, the last ticket will be reprinted.
        d)   If the ESCAPE key is pressed, "Axle Setup" will be displayed on the lower Jaguar
                display.
                i)   Press the ESCAPE key to return to Step 2.
                ii)   Press the SELECT key to toggle between "Axle Setup" and "Exit Program"
                        prompts.
                iii)   Press the ENTER key to accept the current selection.
                        "Password?" will be displayed on the lower Jaguar display.
                        Type the password and press ENTER.
                        (The original password is null. At the "Password?" prompt, just press ENTER.)
                        a)   If the password is correct and "Exit Program" was selected, the program
                                will terminate, returning the keypad to normal Jaguar control.
                        b)   If the password is correct and "Axle Setup" was selected, the program
                                will go to Step 15.
                        c)   If the password is incorrect, "INVALID PASSWORD" will be displayed
                                briefly. The program will return to Step 2.

3.   "Stop Truck" will be displayed. The entrance and exit traffic lights will be red.
        If this is the first axle and the program is configured for NEW I/O, the Truck On Alarm will turn
        on and remain on for Alarm Time seconds. Meanwhile, the program will continue to Step 4.

4.   If the scale is in motion, "Motion" will be displayed.
        When motion stops, the program continues to Step 5.

5.   If the gross weight is equal to or greater than the threshold, the program will continue to Step 6. If the gross weight is under the threshold, the program starts the Cycle Time timer and begins monitoring the weight.

   a)   If the weight goes above the threshold and motion stops, the program continues to Step 6.

   b)   If the weight goes above the threshold and then back below threshold before motion stops, the program repeats Step 5.

   c)   If Cycle Time is up, the program goes to Step 11.

6.   The axle weight is stored.

7.   "Exit Scale" is displayed. The entrance traffic light is red and the exit traffic light is green.

8.   The program waits for the weight to change (increase or decrease) the Excursion Weight amount, or for the weight to go below the Threshold.

9.   The program waits Excursion Time seconds.

10.   The program waits for the weight to exceed the threshold. When this occurs, the program returns to Step 3. If Cycle Time seconds pass and the weight has not exceeded the threshold, the program continues to step 11.

11.   The entrance and exit traffic lights are red.

12.   If configured for unattended mode, the program continues to Step 13. In attended mode, "Truck ID?" is displayed. Type up to 6 characters, alpha-numeric, and press ENTER.

13.   "PRINTING TICKET" is displayed. The ticket is printed. This ticket can be reprinted by pressing the ENTER key any time before the first axle of the next truck comes onto the scale. (any time before the program reaches Step 3.)

14.   The program waits for the gross weight to be within Zero Tolerance of zero. When this occurs, the program returns to Step 1.

**** Axle Setup ****

15.   "New Password? N" is displayed.
       This prompt is asking if you would like to change the password.
       Press SELECT to toggle between "New Password? N" and "New Password? Y".
       Press ENTER to accept the current selection.
       If No was selected, the program continues to Step 16.
       If Yes was selected, "Enter New Pswd:" is displayed.
       Type the new password, up to 8 characters alpha-numeric, and press ENTER.
       "Retype New Pswd:" is displayed.
       Retype the new password and press ENTER.
       If the password was retyped correctly, "PASSWORD CHANGED" is displayed.
       If the password was retyped incorrectly, "Retyped Wrong" is displayed and the program repeats
       Step 15.

16.   "Threshold?" and the current Threshold value are displayed.
       The Threshold is the weight above which a truck axle is believed to be on the scale.
       The Threshold must be between 1,000 and 10,000 pounds. The default value is 1,000 lbs.
       Press the ENTER key to accept the current Threshold, or type a new value and press ENTER.

17.   "Exc Wt?" and the current Excursion Weight value are displayed.
       Excursion weight is the amount the weight must change to indicate that the last axle has moved
       off the scale, or that an additional axle has come on to the scale. Used in Step 8.
       The Excursion Weight must be between 1,000 and 10,000 pounds. The default value is 1,500 lbs.
       Press the ENTER key to accept the current Excursion Weight, or type a new value and press
       ENTER.

18.   "Exc Timer?" and the current Excursion Timer value are displayed.
       The Excursion Timer is the amount of time the program will wait between seeing the Excursion
       Weight change and checking for the next axle on the scale. Used in Step 9.
       The Excursion Timer must be between .01 and 10 seconds. The default value is 5 seconds.
       Press the ENTER key to accept the current Excursion Timer, or type a new value and press
       ENTER.

19.   "Cycle Timer?" and the current Cycle Timer value are displayed.
       Cycle Timer is the amount of time the weight must be below the threshold for the truck to be
       assumed to be off the scale. Used in Steps 5 and 10.
       The Cycle Timer must be between 10 and 100 seconds. The default value is 10 seconds.
       Press the ENTER key to accept the current Cycle Timer, or type a new value and press ENTER.

20.   "Attended?" and the current value, Y for Yes or N for No, are displayed.
       If Yes is selected, the Truck ID must be entered before a ticket will be printed. Used in Step 12.
       The default value is Yes.
       Press SELECT key to toggle between "Attended? Y" and "Attended? N".
       Press ENTER key to accept current selection.

21.   "Zero Tol?" and the current Zero Tolerance value are displayed.
         The weight must be within Zero Tolerance of zero for the program to reset for the next truck.
         Used in Step 14.
         The Zero Tolerance must be between 0 and 500 pounds. The default value is 100 lbs.
         Press the ENTER key to accept the current Zero Tolerance, or type a new value and press
         ENTER.

22.   "Outputs?" and the current selection, OLD or NEW, will be displayed.
         The Outputs type refers to the mapping of the discrete outputs.
         OLD: OUT1=Entrance Red // OUT2=Entrance Green // OUT3=Exit Red // OUT4=Exit Green
         NEW: OUT1=Entrance Red (off for Green) // OUT2=Exit Red (off for Green) //
                  OUT3=Truck on scale Alarm
         The default value is NEW.
         Press SELECT to toggle between "Outputs? NEW" and "Outputs? OLD".
         Press ENTER to accept the current selection.

23.   If OLD Outputs were selected, this Step is skipped and the program continues to Step 24.
         "Alarm Timer?" and the current Alarm Timer value are displayed.
         Alarm Timer is the duration for which the Truck On Scale Alarm will be on after the first axle
         comes onto the scale. Used in Step 3.
         The Alarm Timer must be between 0 and 9 seconds. The default value is 1 second.
         If the Alarm Timer is set to 0, the alarm will not turn on.
         Press the ENTER key to accept the current Alarm Timer, or type a new value and press
         ENTER.

24.   The Axle Setup parameters are written to a data file named "setup".
         "PLEASE WAIT" is displayed. The program returns to Step 0.

Notes:
- The JagBASIC program will autostart on Jaguar power up and on exit from setup.

- The Jaguar keypad may be used for normal Jaguar operations only while the JagBASIC program is
  stopped. To terminate the program, do the following while "Enter Scale" is displayed on the lower
  Jaguar display:
  Press the ESCAPE key. "Axle Setup" will be displayed on the lower Jaguar display.
  Press the SELECT key. "Exit Program" will be displayed on the lower Jaguar display.
  Press ENTER. "Password?" will be displayed on the lower Jaguar display.
  Type the password and press ENTER.
  (The original password is null. At the "Password?" prompt, just press ENTER.)
  If the password is correct, the program will terminate, returning the keypad to normal Jaguar control.