RICE LAKE 1280 Grain Program Software User Guide

**1280 Grain Program
Software Application
Software User Guide**

July 14, 2023

Contents

1280 Grain Program Software

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Revision History

This section tracks and describes manual revisions for awareness of major updates.

Revision	Date	Description
A	April 23, 2019	Initial manual release
B	14-Jul-23	Updated Software Part Nu

Table i. Revision Letter History

Introduction

The 1280 Grain Program is a custom software application for Rice Lake Weighing Systems 1280 Enterprise Indicator/Controller to support weighing trucks of grain. The 1280 Grain Program stores accounts, trucks and the associated divisor, grain types
and accumulation. Manuals are available from Rice Lake Weighing Systems at **www.ricelake.com/manuals**
Warranty information is available at **www.ricelake.com/warranties**

1.1 Safety
Safety Definitions:

⚠ **DANGER:** Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. Includes hazards that are exposed when guards are removed.

⚠ **WARNING:** Indicates a potentially hazardous situation that, if not avoided, could result in serious injury or

death. Includes hazards that are exposed when guards are removed.

⚠️ **CAUTION:** Indicates a potentially hazardous situation that, if not avoided, could result in minor or moderate injury.

❗ **IMPORTANT:** Indicates information about procedures that, if not observed, could result in damage to equipment or corruption to and loss of data.

General Safety

📖 Do not operate or work on this equipment unless this manual has been read and all instructions are understood.

Failure to follow the instructions or heed the warnings could result in injury or death. Contact any Rice Lake Weighing Systems dealer for replacement manuals.

⚠️ **WARNING**

Failure to heed could result in serious injury or death.

Electric shock hazard!

There are no user serviceable parts. Refer to qualified service personnel for service.

The unit has no power switch, to completely remove power from the unit, disconnect the power source.

For pluggable equipment the socket outlet must be installed near the equipment and must be easily accessible.

Always disconnect from main power before performing any work on the device.

Do not allow minors (children) or inexperienced persons to operate this unit.

Do not operate without all shields and guards in place.

Do not use for purposes other then weighing applications.

Do not place fingers into slots or possible pinch points.

Do not use this product if any of the components are cracked.

Do not make alterations or modifications to the unit.

Do not remove or obscure warning labels.

Do not use near water, avoid contact with excessive moisture.

Operation

The 1280 Grain Program has a touchscreen display. Weigh Screen displays on startup or after exiting configuration.

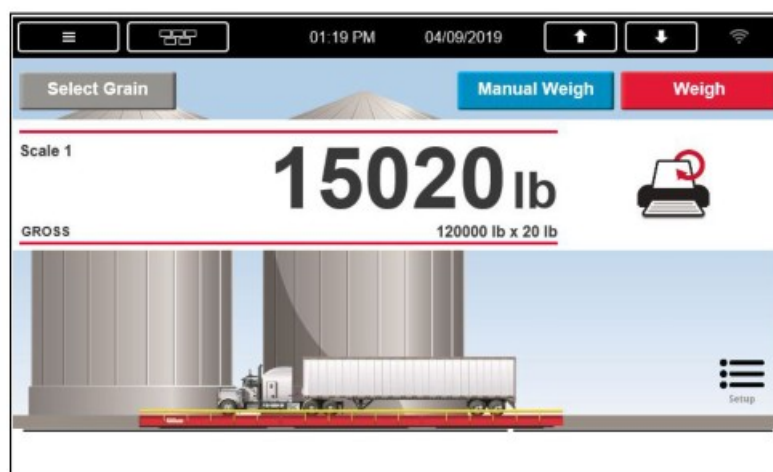To navigate the 1280 Grain Program, select a parameter on the touchscreen display.

Figure 2-1. Weigh Screen

1. Press 🔘 on the 1280 to print the Gross Print Format Ticket.

2. Press 🖨️ to reprint the last printed Weigh Ticket without adding a new record to the Transaction database

table or incrementing the Ticket Number.

2.1 Selecting a Default Grain
The top eight records from the database are displayed in the table.

1. Press Select Grain .

Figure 2-2. Default Grain Selection

2. Press [Page Up] and [Page Down] to scroll through Grain records.

3. To select a a grain, press a Grain Name ID or Grain Name associated with a grain.

4. Press [Exit] to return to Weigh Screen.

2.2 Truck Weighing

NOTE: Perform the Selecting a Default Grain procedure, See Section 2.1 on page 6 if the displayed grain is incorrect.

1. Drive the truck onto the scale.

2. Press Weigh . Enter Truck ID prompts.

3. Enter a value.

4. Press DONE .

NOTE: Press Cancel to exit to return to Weigh Screen.

5. Inbound database table is queried with the entered value and performs one of the following:

A. Truck ID Not Found

i. Stable weight is captured (all three scale units – primary, secondary and tertiary); if the driver entered in a tare the system uses tare instead of gross; Keyed notes weight printed this way

ii. New record is added to the Inbound database table

iii. Weigh In Ticket prints and [printer icon] displays

iv. Ticket Printed prompts for three seconds and exits this sequence of operation
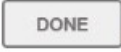
B. Truck ID Found

i. Continue to Step 6

6. Enter % Shrinkage prompts. Enter a value.

7. Press . DONE . Enter % Dockage prompts.

8. Enter a value.

9. Press DONE . Enter % FM prompts.

10. Enter a value.

11. Press DONE . Enter % Moisture prompts.

12. Enter a value.

13. Press DONE . Is this a Contract? displays.

14. Perform one of the following:

Figure 2-5. Contract Selection

A. Press NO ; continue to Step 15 on page 8

B. Press YES ; Enter Contract ID prompts

i. Enter a value

ii. Press DONE .

 NOTE: Press Cancel to return to Step 14 on page 7.

iii. Contract database table is queried with the entered value and performs one of the following:

a.Contract Not Found; Enter Amount Required prompts

• Enter a value

• Press DONE . ; Contract and Amount Required are added to the Contract Database; continue to Step 15

b. Contract Found; continue to Step 15

Figure 2-4. Verification

15. Touch gray field to edit answer displays. Perform one of the following:

    A. Select the field associated to a parameter; selected parameter prompts

     NOTE: Press Cancel to return to Step 15.

    B. Press ; [Continue] stable weight is captured; new record is added to the Transaction database table
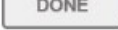
     NOTE: Transaction auto deletes 25% of the oldest records if too many records are entered.

    i. Weigh Out Ticket prints; Weigh Out Ticket contains Contract Ticket if Contract ID is entered; the truck value from the Inbound database table is deleted

    ii. Increments the sequential Ticket Number (resets at 100,000) and prompts

    C. Ticket Printed prompts for three seconds and exits this sequence of operation

     NOTE: When prompted for a value, other than Truck ID, if [DONE] is pressed the value is set to 0. Setting a value for Truck ID is required and cannot be set to 0.

2.3 Manual Ticket Processing
NOTE: Perform the Selecting the Default Grain procedure if the displayed grain is incorrect.

1. Drive the truck onto the scale.
2. Press **Manual Weigh.** Enter Truck ID prompts.
3. Enter a value.
4. Press . Enter Gross Weight prompts.

     NOTE: Press Cancel to exit.

5. Enter a value.
6. Press [DONE]. Enter Tare Weight prompts.
7. Enter a value.
8. Press [DONE]. Enter % Shrinkage prompts.
9. Enter a value.
10. Press [DONE]. Enter % Dockage prompts.

11. Enter a value.

12. Press [DONE]. . Enter % FM prompts.

13. Enter a value.

14. Press [DONE]. . Enter % Moisture prompts.

15. Enter a value.

16. Press [DONE]. . Is this a Contract? displays.

17. Perform one of the following:

Figure 2-3. Contract Selection
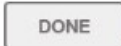
A. Press [NO]; continue to Step 18 on page 10

B. Press [YES]; Enter Contract ID prompts

i. Enter a value

ii. Press [DONE].

iii. Contract database table is queried with the entered value and performs one of the following:

a.Contract Not Found. Enter Amount Required prompts

• Enter a value

• Press ; [DONE]. Contract and Amount Required are added to the Contract Database; continue to Step 18

b. Contract Found; continue to Step 18

Figure 2-6. Contract Values

18. Touch gray field to edit answer displays. Perform one of the following:

   A. Select the field associated to a parameter

   i. Selected parameter prompts

    NOTE: Press Cancel to return to Step 18.

   B. Press **Continue**

   i. Manual Ticket prints and adds a new record to the Transaction database table; Manual Ticket contains the Contract Ticket if a Contract ID had been entered

    NOTE: Transaction auto deletes 25% of the oldest records if too many records are entered.

   ii. Increments the sequential Ticket Number (resets at 100,000) and displays

   C. Ticket Printed prompts for three seconds and exits this sequence of operation

Serial Communications

This section provides information regarding serial communications.

3.1 Weigh In Ticket

The program uses the Auxiliary Print Format #1. Print format may be modified through the 1280 front panel or by using Revolution™ PC software.

11320 lb 05:39 AM SCALE S Truck 77

Figure 3-1. Weigh In Ticket

User String	Description
<US1>	Gross Weight with units
<US2>	Time of transaction
<US3>	Date of transaction
<US4>	Truck ID – up to 15 characters
<US5>	"KEYED S" or "SCALE S"

Table 3-1. Weigh In Ticket User String Definitions

3.2 Weigh Out Ticket

The program uses the Auxiliary Print Format #2. Print format may be modified through the 1280 front panel or by using Revolution PC software.


```
11320 lb 05:39 AM RECALLED 77

05:42 AM 03/20/2019
Grain   1 Wheat
G  18100 lb     60.00 lb/bu 113.00 bu
T  11320 lb R   5.0 %DOCK    5.65 bu
N   6780 lb     5.0 %SHRK    5.37 bu
                          101.98 NET bu
   % MOISTURE 15.0     % FM 3.0
```

Figure 3-2. Weigh Out Ticket

User String	Description
<US1>	Gross Weight with units
<US2>	Time of transaction
<US3>	Date of transaction
<US4>	Truck ID – up to 15 characters
<US5>	"KEYED S" or "SCALE S"
<US6>	Grain Name – up to 15 characters
<US7>	Gross Weight with units
<US8>	Tare Weight with units
<US9>	Net Weight with units
<US10>	"R" – Gross was Recalled
<US11>	"R" – Tare was Recalled
<US12>	Pounds per UOM (BU, TN, etc)
<US13>	Divisor UOM (BU,TN, etc)
<US14>	UOM
<US15>	Net UOM

Table 3-2. Weigh Out Ticket User String Definitions

User String	Description
<US16>	Dockage in %
<US17>	Dockage in UOM
<US18>	Shrinkage in %
<US19>	Shrinkage in UOM
<US20>	Moisture in %
<US21>	Foreign Material in %
<US22>	Ticket Number
<US23>	Time of Transaction
<US24>	Date of Transaction
<US25>	Scale Units

Table 3-2. Weigh Out Ticket User String Definitions (Continued)

3.3 Contract Ticket

The program uses the Auxiliary Print Format #3. Print format may be modified through the 1280 front panel or by using Revolution PC software.

```
Contract No. Required      Delivered
         4      4000.00 bu    219.23 bu
```

Figure 3-3. Contract Ticket

User String	Description
<US30>	Contract Number
<US31>	Required
<US32>	Delivered
<US33>	UOM

Table 3-3. Contract Ticket User String Definitions

3.4 Manual Ticket

The program uses the Auxiliary Print Format #4. Print format may be modified through the 1280 front panel or by using Revolution PC software.

```
05:47 AM 03/20/2019
Grain   1 Wheat
G  20000 lb K   60.00 lb/bu 250.00 bu
T   5000 lb K    5.0 %DOCK   12.50 bu
N  15000 lb      5.0 %SHRK   11.88 bu
                           225.62 NET bu
   % MOISTURE 15.0     % FM 3.0
```

Figure 3-4. Manual Ticket

User String	Description
<US1>	Recalled Weight with units (Not Used)
<US2>	Recalled Time of Inbound transaction (Not Used)
<US3>	Recalled Date of Inbound transaction (Not Used
<US4>	Recalled Truck ID – up to 15 characters (Not Used)
<US5>	Grain ID
<US6>	Grain Name – up to 15 characters
<US7>	Keyed Gross Weight with units
<US8>	Keyed Tare Weight with units
<US9>	Net Weight with units
<US10>	"K" – Gross was Keyed
<US11>	"K" – Tare was Keyed
<US12>	Pounds per UOM (BU, TN, etc)
<US13>	Divisor UOM (BU,TN, etc)
<US14>	UOM
<US15>	Net UOM
<US16>	Dockage in %
<US17>	Dockage in UOM
<US18>	Shrinkage in %
<US19>	Shrinkage in UOM
<US20>	Moisture in %
<US21>	Foreign Material in %
<US22>	Ticket Number
<US23>	Time of Transaction
<US24>	Date of Transaction
<US25>	Scale Units

Table 3-4. Manual Ticket User String Definitions
3.5 Grain Report
The program uses the Auxiliary Print Format #10, #11 and #12. Print format may be modified through the 1280 front panel or by using Revolution PC software.

```
                Grain Report
            05:53 AM 03/20/2019
    ****************************************
    ID        Name          Divisor  Accumulator
     1        Wheat          60.00     956.35

            Total All Grains 956.35
```

Figure 3-5. Grain Report

User String	Description
<US50>	Grain ID
<US51>	Grain Name
<US52>	Grain Divisor
<US53>	Grain Accumulator
<US54>	Total Grain Accumulator

Table 3-5. Grain Report User String Definitions

3.6 Contract Report

The program uses the Auxiliary Print Format #13, #14 and #15. Print format may be modified through the 1280 front panel or by using Revolution PC software.

```
                Contract Report
               05:53 AM 03/20/2019
    ***************************************
    Number   Required   Delivered   Remaining
       4     4000.00      219.23     3780.77
      12      100.00        0.00        0.00

    Totals   4000.00      219.23     3780.77
```

Figure 3-6. Contract Report

User String	Description
<US60>	Contract ID
<US61>	Contract Required
<US62>	Contract Delivered
<US63>	Contract Remaining
<US64>	Contract Total Required
<US65>	Contract Total Delivered
<US66>	Contract Total Remaining

Table 3-6. Contract Report User String Definitions

Modifying the Database Tables

Interchange Database Management software may be used to upload, export and clear the database tables. The exported file may be saved as a delimited text file, an Excel™ spreadsheet, or as a XML document. Revolution may be used instead of Interchange Database Management to perform database maintenance.

4.1 Application Setup and Configuration

Setup is password-protected and offers access to the following:

- Display Program Name & Version
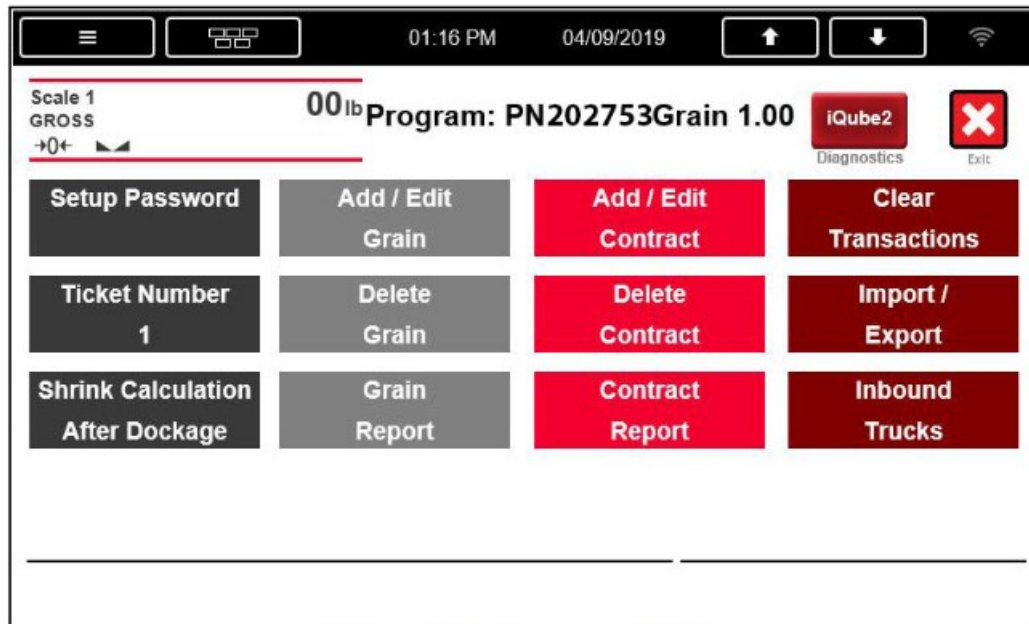
- Display a weight widget

Figure 4-1. Program Setup

Parameter	Default	Touch Widget	Description
System Password	""	Setup Password	Changing the password is required for entry into the **Setup Menu**; not entering a password causes the system to not prompt for a password when **Setup** is pressed
Clear Transactions	–	Clear Transactions	Clear **Transaction** database with a Yes/No option
Import/Export	–	Import/Export	Allows importing and exporting of databases
iQube2 Diagnostics	–	Diagnostics	1280 standard iQube2 **Diagnostics**; reference the 1280 Installation manual for more details
Ticket Number	1	Ticket Number	Modify the sequential **Ticket Number**
Add/Edit Grain	–	Add/Edit Grain	Add or edit a record in the **Grain** database table
Delete Grain	–	Delete Grain	Delete a record from the **Grain** database table
Grain Report	–	Grain Report	Print the **Grain Report** and then have a **Yes – No** prompt to reset the **Accum** field for each grain
Add/Edit Contract	–	Add/Edit Contract	Add or edit a record in the **Contract** database table
Delete Contract	–	Delete Contract	Delete a record from the **Contract** database table
Contract Report	–	Contract Report	Print the **Contract Report**
Shrink Calculation	Off Gross Weight/**After Dockage**	Shrink Calculation	Switch shrink calculation between **Off Gross Weight** and **After Dockage**
Inbound Trucks	–	Inbound Trucks	View/delete trucks which have weighed in but not weighed out yet

Table 4-1. Parameter Descriptions
4.2 Database Tables

Field	Type	Description
ID	Integer	Grain ID – (1-999)
Name	String	Alphanumeric grain name – up to 15 characters
Divisor	Real	Number of pounds per bushel
DivUOM	String	Divisor Units (lb, kg, bu, and others)
Accum	Real	Accumulator

Table 4-2. Grain Database Table – 100 Records

Field	Type	Description
ID	String	Truck ID
PWgt	Real	Weight in Primary Units
SWgt	Real	Weight in Secondary Units
TWgt	Real	Weight in Tertiary Units
Keyed	Byte	Keyed tares
TD	DateTime	Time and date of Inbound

Table 4-3. Inbound Database Table – 1000 Records

Field	Type	Description
ID	Integer	Grain ID – (1-999)
Reqd	Real	Amount required
Del	Real	Amount delivered

Table 4-4. Contract Database Table – 100 Records

Field	Type	Description
Ticket	Integer	Ticket number
Truck	String	Truck identifier
GID	Integer	Grain identifier
GName	String	Grain name
Divisor	Real	Grain divisor – pounds per bushel
DivUOM	String	Divisor unit of measure
Contract	Integer	Contract number – 0 if not used
Gross	Real	Gross weight
Tare	Real	Tare weight
Net	Real	Net weight
NetDiv	Real	Net bushels
Shrink	Real	Shrink %
Moisture	Real	Moisture %
FM	Real	Foreign Material %
Dock	Real	Dockage %
TD	DateTime	Time and date of transaction

Table 4-5. Transaction Database Table – 3000 Records

Hardware Setup

This section provides information regarding hardware setup of option card locations, digital I/O and serial ports.

NIT	1280 Display Size/Type (12" or 7")
500	7"
1500	12"

Table 5-1. 1280 Display Size/Type

Slot	Type
1	Single Channel A/D card (analog scale) or Dual Channel Serial Card (iQube2 scale)
2 – 6	Currently not used

Table 5-2. Option Card Locations

Slot	Bit	Type	Function
0	1 – 8	Off	Currently not used

Table 5-3. Digital I/O

Port	Type	Description	Setup
1	CMD	Epson TM-U295 printer	9600,8,N,1
2	CMD	Remote Display	9600,8,N,1
5	iQube2	iQube2 (optional)	115200,8,N,1
6	CMD	Currently not used	9600,8,N,1

Table 5-4. Serial Port

Port	Type	Description	Setup
3	CMD	Currently not used	–

Table 5-5. USB Device Port

Port	Type	Description	Setup
–	CMD	Currently not used	–
–	CMD	Currently not used	–

Table 5-6. USB Type-A Port

Port	Type	Description	Setup
10001	CMD	Currently not used	TCP server
10001	CMD	Currently not used	TCP client 1
10002	CMD	Currently not used	TCP client 2
20000	CMD	Currently not used	Stream server
3000	CMD	Currently not used	Web server

Table 5-7. Ethernet TCP/IP Port

Port	Type	Description	Setup
4	CMD	Currently not used	–

Table 5-8. Bluetooth Port

Documents / Resources

1280 Grain Program Software Application **Software User Guide** RICE LAKE WEIGHING SYSTEMS	**RICE LAKE 1280 Grain Program Software** [pdf] User Guide 1280, 1280 Grain Program Software, Grain Program Software, Software

References

- **R** **Rice Lake Weighing Systems**
- **R** **Manuals | Rice Lake Weighing Systems**
- **R** **Training | Rice Lake Weighing Systems**
- **R** **Warranties**
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