

IND246/IND246 POWERCELL

File Transfer Tool



METTLER TOLEDO

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1 Installation

This chapter covers

- System Requirements
- Installation Procedure
- Support

This chapter contains information on system requirements, application installation, connecting the terminal to the PC, and support.

1.1. System Requirements

This section describes system requirements, including details on the required hardware and other software needed to run the IND246 File Transfer Tool.

1.1.1. O/S requirements

IND246 File Transfer Tool runs on the following Windows operating systems:

- Microsoft® Windows® XP Professional, SP2 (32-bit version)
- Windows 7 (32-bit version)

1.1.2. Hardware requirements

Hardware requirements match those of your chosen O/S. In addition, IND246 File Transfer Tool requires:

- Approximately 2 MB free disk space required (not including .NET)
- Approximately 26 MB of available RAM

1.1.3. Software requirements

- Microsoft® .NET Framework, version 3.5 (or later)

1.2. Software Installation and Initial Launch

Follow the automated prompts to install the IND246 File Transfer Tool. Begin by double-clicking on the installer icon.

Once the installation is complete, the IND246 File Transfer Tool and, if necessary, Microsoft .NET Framework are installed on the PC. The IND246 File Transfer Tool is launched via **Start | All Programs | Mettler Toledo | File Transfer Tool**.

1.3. Connecting the terminal and PC

After installing the IND246 Transfer Tool, as described above, a physical connection between the PC and the terminal must be made using the appropriate cable. The connection parameters must also be configured via the **Settings** icon on the **Home** tab of the IND246 File Transfer Tool. Refer to Chapter 2 for details on configuring serial, USB, and Ethernet connections.

1.4. Connection Options

The IND 246 terminal supports serial, USB and Ethernet connectivity options. Each method is addressed in more detail below.

1.4.1. Serial Option

Serial connectivity between the PC and the terminal uses a "straight-through" serial cable. However, a 9-pin serial port on the PC is required. If no serial port is present on the PC, a USB-to-serial converter cable can be used between the PC and the serial cable.

The serial cable requires a DB9 connector on one end, and a modular 3-pin terminal connector (included with the serial communication option) on the other end. The pin-out diagram is shown in Table 1-1.

Table 1-1: Serial cable pin-outs

PC 9-pin	Terminal Block	Color
2	1-TxD	Red
3	2-RxD	Black
5	3-Gnd	Clear

A pre-fabricated cable with the appropriate 9-pin connector is available from METTLER TOLEDO. Order part number 64080314.

To install the serial cable, connect the 9-pin modular serial connector to the serial port on the PC and tighten the finger-screws until the connector is snug. Connect the other end to the 3-pin COM1 port on the serial communications card in the IND246 terminal, following the color codes indicated in Table 1-1.

Refer to Chapter 2 for details on configuring serial connections.

1.4.2. Ethernet Option

Ethernet connectivity between the PC and the terminal is possible using a standard Ethernet cable with modular RJ45 connectors at each end. Verify that both RJ45 connectors are fully snapped into their respective jacks.

Refer to Chapter 2 for details on configuring Ethernet connections.

1.4.3. USB Option

USB connectivity between the PC and the terminal is possible using a standard A-B USB cable.

Refer to Chapter 2 for details on configuring USB connections.

1.5. Support Information

Please contact your local METTLER TOLEDO service office or access on-line help at mt.com for support.

2 Operation

This chapter covers

- Purpose and features
- User interface overview
- Operation and configuration options

The IND246 File Transfer Tool provides quick and easy access to IND246 terminal data files. The intuitive user interface eliminates the need for training, and the built-in integrity and error checking features of the File Transfer tool and IND246 terminal ensure trouble-free and reliable data management.

2.1. IND246 File Transfer Tool Overview

The IND246 File Transfer Tool supports both reading and writing data to the IND246 terminal. When used in combination with a third-party .csv-compatible file viewer/editor, data can be retrieved from the terminal, edited, and written back to the terminal.

The five data files/tables and their respective applications are listed in Table 2-1.

Table 2-1: Available Data Tables/Log Files

Table	Application
Alibi Memory Log	Basic weighing
Vehicle Transaction Log	Vehicle
Vehicle Permanent ID Table	Vehicle
Target Table	Checkweighing
Counting ID Table	Counting
Error Log (POWERCELL only)	Vehicle
Performance Log (POWERCELL only)	Vehicle

- The Alibi Memory Log, Vehicle Transaction Log, Error Log and Performance Log can be read from the terminal, but cannot be written back to the terminal.

The IND246 File Transfer Tool supports serial, USB and Ethernet connections to the IND246 terminal. For serial connectivity, the PC must have either a 9-pin serial port or a USB-to-serial converter.

2.2. Launching the Application

Launching the IND246 File Transfer Tool is similar to launching any other Windows® application. Click on the File Transfer Tool icon  on the desktop or select the menu item **Start | All Programs | Mettler Toledo | File Transfer Tool** to launch the application.

2.3. Screen Layout and Functions

Figure 2-1 shows the main screen layout of the IND246 File Transfer Tool. Each element is indicated here, and described in more detail in the following sections.

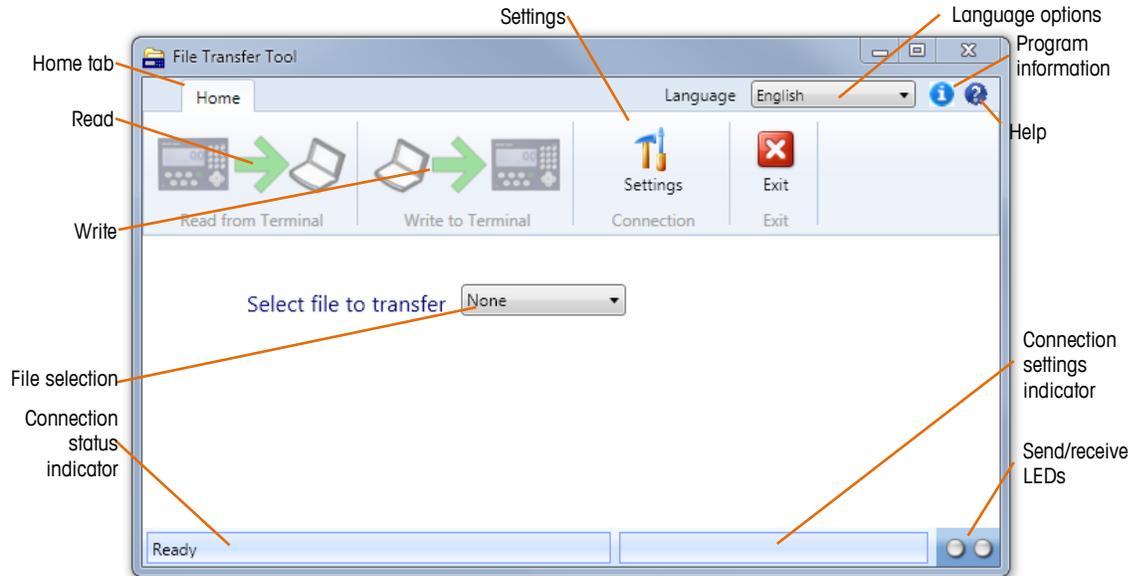


Figure 2-1: IND246 File Transfer Tool main screen

2.3.1. Menu Bar Icons

Language selection is made using the pull-down menu in the upper-right corner of the Home screen. Language choices include English (default), French, German, Italian, Spanish, and Chinese. The selected language is applied to all user screens within the application.

Immediately to the right of the language pull-down is the **Info** icon (i) which links to the About dialog, similar to the one shown below in Figure 2-2. This dialog displays the version number of the installed application. Dismiss this dialog by clicking on "OK."

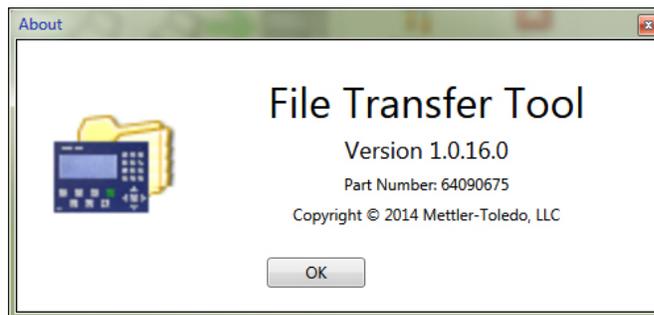


Figure 2-2: About dialog (Info)

The **Help** icon (h) is located next to the Info icon. The Help icon links to this PDF file, directly from within the application. Adobe's free Acrobat Reader is required to access the Help file. Adobe Acrobat Reader is available on the METTLER TOLEDO Resource CD, or can be downloaded from adobe.com.

The language of the Help file is dependent on the language selection made via the menu bar language chooser. English-, Chinese-, German-, and Italian-language users will access the English-language Help file. French and Spanish-language users will access the French and Spanish Help files, respectively.

2.3.2. Home Tab – Icon Bar

The Home tab icon bar (Figure 2-3) contains four icons used to select from **Read from Terminal**, **Write to Terminal**, **Settings** and **Exit**. Each icon is described in more detail in the following sections.

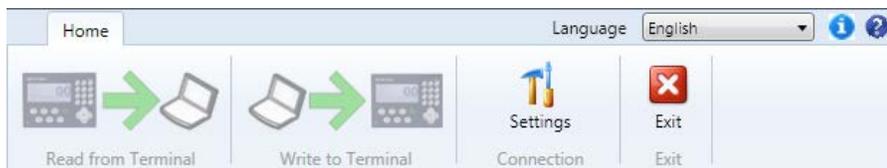


Figure 2-3: Toolbar tabs

2.3.2.1. Read from Terminal

The **Read from Terminal** icon is used to initiate the file transfer process from the terminal to the PC. Note that this icon remains grayed-out until a file selection is made, as described below. Refer to Chapter 3 for additional information about reading files.

2.3.2.2. Write to Terminal

The **Write to Terminal** icon is used to initiate the file transfer process from the PC back to the terminal. Note that this icon remains grayed-out until a file selection is made, as described below. Refer to Chapter 3 for additional information about writing files.

2.3.2.3. Connection

The **Settings** icon is used to access the **Connection Settings** dialog to configure the serial, USB, and Ethernet connection parameters.

The **Connection Settings** dialog, shown in Figure 2-4, is divided into two sections. When configuring a serial or USB connection, select the **Serial Port** checkbox and enter values in the areas provided. When configuring an Ethernet connection, select the **Ethernet** checkbox and enter the terminal's IP address. After setting the correct parameters, click on the **OK** button to accept the selections and return to the Home page.

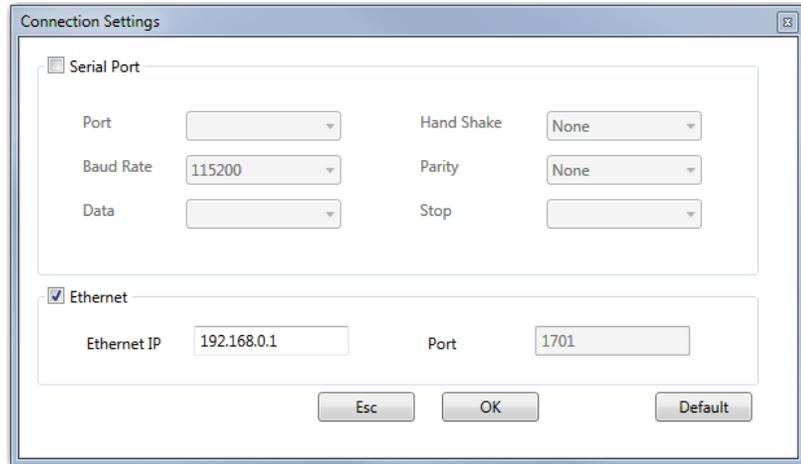


Figure 2-4: Connection Settings Dialog

2.3.2.3.1. Configuring Serial and USB Connections

Serial and USB connection settings in the IND246 File Transfer Tool must be edited to match the serial port settings in the IND246 terminal. Refer to the **IND246 Terminal User's Guide** for information on how to configure the serial port.

2.3.2.3.2. Configuring Ethernet connections

Ethernet connection settings in the IND246 File Transfer tool must be edited match the Ethernet port settings in the IND246 terminal. Refer to the **IND246 Terminal User's Guide** for information on how to configure the Ethernet port.

■ **NOTE:** The Ethernet IP address entered in the **Connection Settings** dialog must be configured to match the Ethernet IP address of the terminal.

The Ethernet port number is shown but is not editable – only an Ethernet IP address can be entered.

2.3.2.4. Default button

The **Default** button is used to re-set all connection settings to factory defaults.

2.3.2.5. Exit

The **Exit icon**, shown in Figure 2-3, is used to close the application.

2.3.3. Home Tab – File Selection

Below the Home tab icon bar is the **File Selection** dialog, shown in Figure 2-5. This dialog is used to select the file to be transferred.

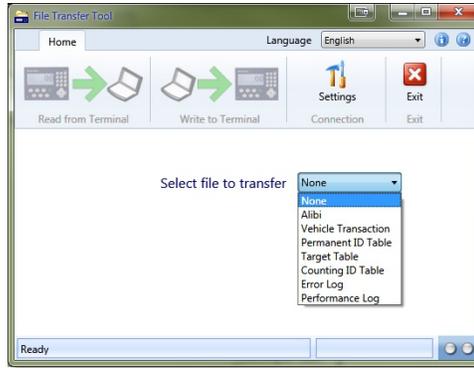


Figure 2-5: File Selection Dialog

The file choices and their respective applications are listed in Table 2-2.

Table 2-2: Available Data Tables/Log Files

Table	Application
Alibi Memory Log	Basic weighing
Vehicle Transaction Log	Vehicle
Vehicle Permanent ID Table	Vehicle
Target Table	Checkweighing
Counting ID Table	Counting
Error Log (POWERCELL only)	Vehicle
Performance Log (POWERCELL only)	Vehicle

- The Alibi Memory Log, Vehicle Transaction Log, Error Log and Performance Log can be read from the terminal, but cannot be written back to the terminal.

Once a file is selected, the **Read from Terminal** and **Write to Terminal** icons in the icon bar become active. Refer to Chapter 3 for additional information pertaining to reading and writing files.

2.3.4. Status Bar

The Status bar, located at the bottom of the screen contains three indicators used to communicate status information, identified in Figure 2-1.

The **connection status indicator** displays the state of the current connection. Status messages and their full meanings are as follows:

Ready	No current connection
Reading from Terminal	Transferring file from IND246 terminal to PC
Writing to Terminal	Transferring file from PC to IND246 terminal

The **connection settings indicator** displays the attributes of the current connection when a connection is active. Either the IP address for an Ethernet connection or the serial port parameters for a serial or USB connection will be shown here.

The **send/receive LED indicators** display the current send and receive states of the terminal. They are active only during a file transfer. The left LED flashes green when the terminal is receiving data from the PC. The right LED flashes green when the terminal is sending data to the PC.

3 Read and Write Data Files

This chapter covers

- Overview of data files
- How to read and write data files
- Considerations for reading and writing data files

The IND246 File Transfer Tool is designed to make it easy to transfer data files to and from the IND246. This chapter describes how to read and write data files.

3.1. Data File Overview

The IND246 File Transfer Tool facilitates transfer of the files and tables shown in Table 3-1 from the IND246 to a PC:

Table 3-1: Data Tables and Log Files Available for Transfer from IND246 to PC

Table	Application
Alibi Memory Log	Basic weighing
Vehicle Transaction Log	Vehicle
Vehicle Permanent ID Table	Vehicle
Target Table	Checkweighing
Counting ID Table	Counting
Error Log (POWERCELL only)	Vehicle
Performance Log (POWERCELL only)	Vehicle

- The Alibi Memory Log, Vehicle Transaction Log, Error Log and Performance Log can be read from the terminal, but cannot be written back to the terminal.

Each file is specific to a particular application on the IND246 terminal. For more information about the different applications available and how to use them, consult the **IND246 User's Guide**.

3.2. Requirements

Prior to reading or writing data, the IND246 File Transfer Tool must be installed as described in Chapter 1.

Verify that the proper physical connection is made, and that it is correctly configured from the **Settings** dialog of the IND246 File Transfer Tool. Refer to Chapter 4 for information on configuring connections.

3.3. Reading Data Files

1. On the Home tab of the IND246 File Transfer Tool, use the File selection dialog to select the file to be read from the terminal, as shown in Figure 3-1.

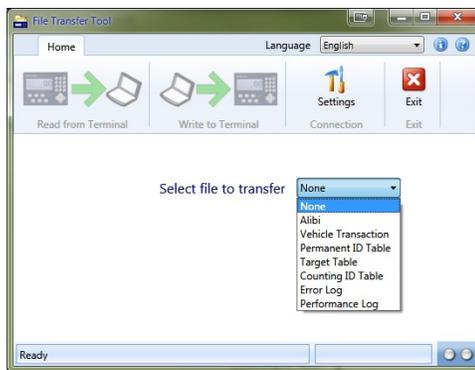


Figure 3-1: File Selection Dialog

The available file choices and their respective applications are shown in Table 3-2.

Table 3-2: Available Data Tables/Log Files

Table	Application
Alibi Memory Log	Basic weighing
Vehicle Transaction Log	Vehicle
Vehicle Permanent ID Table	Vehicle
Target Table	Checkweighing
Counting ID Table	Counting
Error Log (POWERCELL only)	Vehicle
Performance Log (POWERCELL only)	Vehicle

- The Alibi Memory Log, Vehicle Transaction Log, Error Log and Performance Log can be read from the terminal, but cannot be written back to the terminal.
2. Once the file to be transferred has been selected (step 1), the Read from Terminal icon can be selected.
 3. When the Read from Terminal icon is been selected, a new dialog (Figure 3-2) will prompt for the **Saved File Name**. This is the name the file will be given when it is saved to the PC.

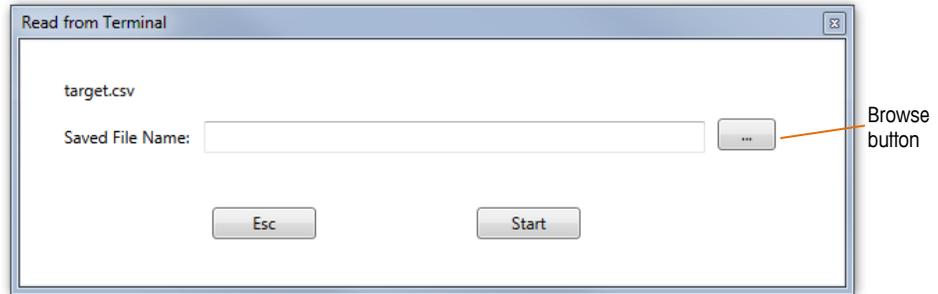


Figure 3-2: Read from Terminal Dialog

■ NOTE: The file previously selected in step 1 is shown in the upper left of this dialog to provide visual confirmation of the file about to be read from the terminal. In the above example the file name shown is target.csv.

4. In the **Saved File Name** text entry area shown in Figure 3-2, enter a **Save As** name for the file about to be transferred to the PC.

Alternately, prior to clicking the Start button to begin the transfer, specify a different **Save As** location via the browse button shown in Figure 3-2. Browse to a new location in the Windows Explorer **Save As** dialog (Figure 3-3), and select or enter a **Save As** file name

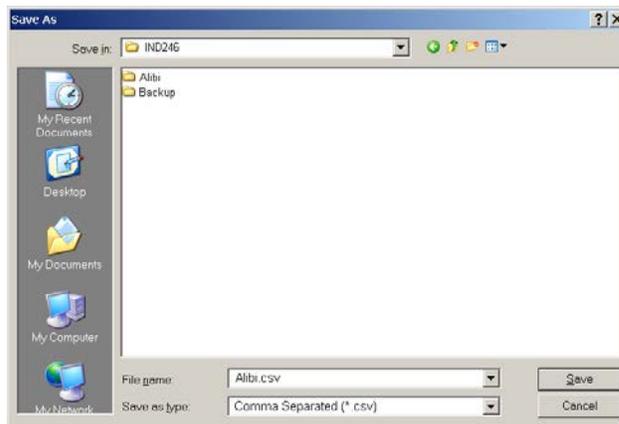


Figure 3-3: Windows Explorer "Save As" Dialog

5. Click **Cancel** to abort this process, or click **Save** to keep the information entered and return to the **Read from Terminal** dialog.
 - NOTE: To save files to the PC, the user account must have local administrator permission to write to the selected folder.
 - NOTE: Files can be saved only in .csv (comma separated values) format.
6. Click the **Start** button to initiate the transfer, or click on ESC to abort the process and return to the **Home** tab of the IND246 File Transfer Tool.
7. Once the transfer process begins, the **Home** tab of the IND246 File Transfer Tool will display a progress bar (Figure 3-4).

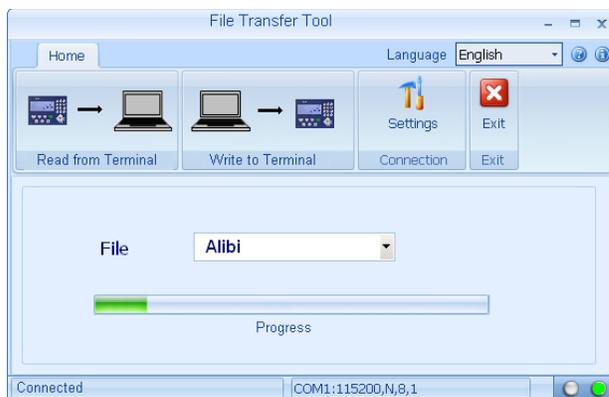


Figure 3-4: File Transfer Progress Bar

In addition to the progress bar, during the transfer, the status bar area at the bottom of the screen shows the connection status and the connection settings. The LEDs (at bottom right) show the PC and terminal read/write activity.

8. When the file transfer completes successfully, a pop-up box (Figure 3-5) appears to confirm that the transfer was successful. Dismiss this dialog and return to the **Home** screen by clicking "OK".



Figure 3-5: Success Confirmation Dialog

9. After the Alibi or Vehicle Transaction files are read from the terminal, a pop-up message (Figure 3-6) will ask if the files are to be cleared.

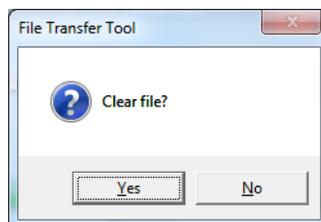


Figure 3-6: Clear File Dialog

10. To clear the files, click "Yes". To exit without clearing the files, click "No". A success or failure message will be shown after an attempt to clear the file is triggered. To clear the message, click "OK".
11. Exit the IND246 File Transfer Tool by clicking on the Exit icon on the home page. The program will close.

■ **NOTE:** When editing data files (in a third-party data editing tool) with the intent of writing them back to the terminal in the future, utmost care is required. Carefully respect the existing column headers and data length/type restrictions. For more information, refer to Chapter 4.

3.4. Writing Data Files

1. On the Home tab of the IND246 File Transfer Tool, use the File selection dialog to select the file to written to the terminal, as shown in Figure 3-7.

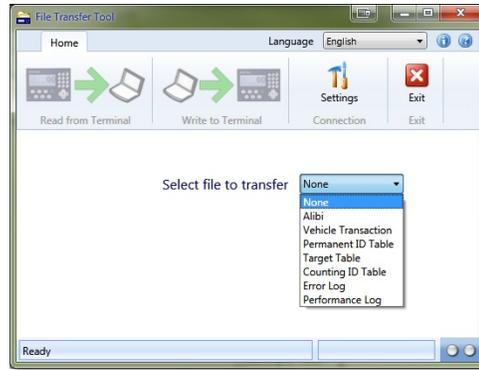


Figure 3-7: File Selection Dialog

The available file choices and their respective applications are shown in Table 3-3, below:

Table 3-3: Available Data Tables/Log Files

Table	Application
Vehicle Permanent ID Table	Vehicle
Target Table	Checkweighing
Counting ID Table	Counting

- The Alibi, Vehicle Transaction, Error and Performance files can only be read from the terminal to the PC. These files cannot be written from the PC back to the terminal. If you choose one of these files, the **Write to Terminal** icon will remain grayed out.
2. The **Write to Terminal** icon can be selected once the file to be transferred has been selected (step 1). However, Alibi and Vehicle Transaction files cannot be transferred from the PC to the terminal. If either of those files is selected in step 1, the **Write to Terminal** icon will remain greyed-out.
 3. After selecting the Write to Terminal icon, as per Step 2, a new dialog (Figure 3-8) will prompt for the name of the file to be transferred. This is the name given to the file when it was saved on the PC.

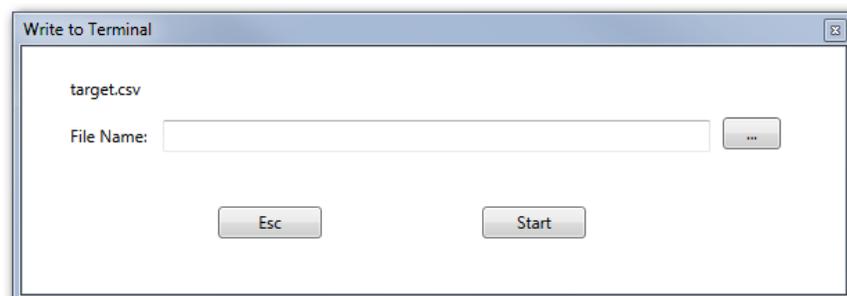


Figure 3-8: Write to Terminal Dialog

- NOTE: The file previously selected in step 1 is shown in the upper left of this dialog to confirm the type of file that is about to be written to the terminal. In the above example the file name shown is **target.csv**.
4. In the **File Name** text entry area (Figure 3-8), enter the name of the file to be transferred from the PC to the terminal.
 - NOTE: When selecting files from the PC to write to the IND246 terminal, regardless of how the file is named on the PC, when it is written to the terminal it is given the name that corresponds to the file type chosen in step 1, above. Once written to the terminal, the file name corresponds to its type, which also appears in the upper left corner of the **Write to Terminal** dialog.

Alternately, prior to clicking on the Start button to begin the transfer, to specify a new location, click on the browse button (). A Windows Explorer **Open** dialog will facilitate browsing to a new location, and selecting or entering a file name.
 5. Click cancel to abort this process, or click **Open** to keep the information entered and return to the **Write to Terminal** dialog. See Figure 3-9.

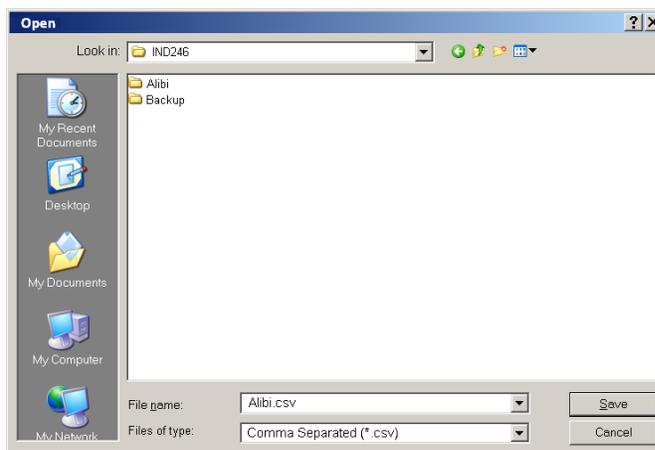


Figure 3-9: Windows Explorer "Open" Dialog

6. Click the **Start** button to initiate the transfer, or click on ESC to abort the **Write to Terminal** process and return to the **Home** tab of the IND246 File Transfer Tool.
 - NOTE: Files to be written to the terminal must be in .csv (comma separated values) format
 - NOTE: The file to be written to the terminal will over-write the corresponding file in the terminal.
7. Once the transfer process begins, the **Home** tab of the IND246 File Transfer Tool will display a progress bar, as shown in Figure 3-10.



Figure 3-10: File Transfer Progress Bar

8. In addition to the progress bar, during the transfer the status bar area at the bottom of the screen shows the connection status and the connection settings. The LEDs (at right) show the PC and terminal read/write activity.
9. When the file transfer completes successfully, a pop-up box, as shown in Figure 3-11 appears to confirm that the transfer was successful. Dismiss this dialog by clicking "OK" and return to the **Home** screen.



Figure 3-11: Success Confirmation Dialog

- **NOTE:** Before the IND246 File Transfer Tool writes a data file to the terminal, the IND246 verifies its data integrity. The integrity check is required for the **Perm_id.csv**, **Target.csv** and **Count.csv** files.

10. To exit the IND246 File Transfer Tool, click on the Exit icon on the home page. The program will close.

3.5. File Transfer Errors

To minimize error messages and failed file transfers, check the following details by reviewing the file in a PC-based .csv file editor before loading it to the terminal:

- Confirm that maximum number of records in the table is not exceeded
- Confirm that each record contains the correct number of fields – not too many or too few
- Confirm that the type of data and number of characters are correct for each field. Some fields are numeric only, and each has a maximum length

If a file transfer fails an integrity check performed by the IND246, a corresponding error message will display. Figure 3-12 shows some examples.

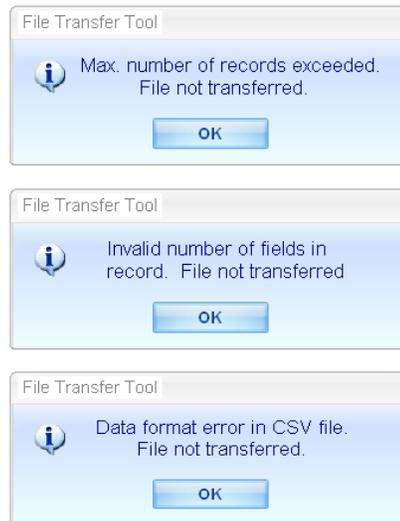


Figure 3-12: Error Confirmation Dialogs

To correct these errors, refer to Chapter 4, **Editing Data Files**.

4 Editing Data Files

This chapter covers

- Editing data files using 3rd-party spreadsheet applications.
- Data editing restrictions.
- Table structures for IND246 applications.

The IND246 File Transfer Tool supports transfer of data files between the IND246 terminal and the PC. This chapter provides critical information for successfully editing data files outside of the IND246 File Transfer Tool.

4.1. Introduction

Files transferred to a PC using the IND246 File Transfer Tool can be edited on the PC using a third-party application compatible with the comma-separated-value (.csv) file format. The IND246 File Transfer Tool does not support file editing.

Applications that support reading and writing of .csv files include:

Microsoft® Excel
Microsoft® WordPad
Microsoft® Notepad

4.2. Editing Restrictions

Data files are saved on the host PC, select files can be uploaded back into the terminal. However, the following restrictions/conventions must be observed when editing files that will be uploaded back to the terminal.

1. Two specific characters are **not** permitted in any data fields for any records. The prohibited characters are:
 - Comma (,)
 - Quotes (“
2. If these characters are included in any field of any of the tables, the data will not be transmitted correctly, or the file may not transfer at all.
3. In the examples that follow, each column represents a field, and each row a record. The last field in a record to be sent to the terminal (i.e., in a **Permanent ID**, **Target** or **Counting ID** table) is a Total field, and cannot be empty. If it is not used, a value of “0” should be entered. If this

field is left with a null value (empty), the file will not transfer to the terminal. An example of a table with a total field can be seen in Table 4-8.

4. Do not exceed the maximum allowable length of each field. If any field is too long, the table may not transfer correctly.
5. To ensure that the appropriate values are treated as numbers, all weight, count and total fields must have the field type of "General" selected in Microsoft Excel.
6. To ensure that leading zeroes are retained, all fields **other than** the weight, count, and total fields must have the field type of "Text" in Microsoft Excel. If an ID field is formatted as "General" by mistake, an ID value of "0012" will be automatically converted to "12" when it is imported.
7. If the SD memory card is not present, some of the tables are restricted in size. These size restrictions are shown in Table 4-1.

Table 4-1: SD Memory Card and File Size

Log File or Table	Record Quantity Without SD Card	Record Quantity With SD Card
Alibi	Analog*	60,000
	POWERCELL	20,000
Transaction	Analog*	4,000
	POWERCELL	14,000
Permanent ID	Analog*	99
	POWERCELL	49
Target	10	25
Counting ID	10	99

* SD card is required

4.3. Table Structures

The IND246 File Transfer Tool supports transfer of the data files shown in Table 4-2.

Table 4-2: Data Tables and Log Files Available for Transfer Using the File Transfer Tool

Table	Application
Alibi Memory Log	Basic weighing
Vehicle Transaction Log	Vehicle
Vehicle Permanent ID Table	Vehicle
Target Table	Checkweighing
Counting ID Table	Counting
Error Log (POWERCELL only)	Vehicle
Performance Log (POWERCELL only)	Vehicle

- The Alibi Memory Log, Vehicle Transaction Log, Error Log and Performance Log can be read from the terminal, but cannot be written back to the terminal.

The following sections describe the table structures for each IND246 data file. In each table, note the formatting used within Microsoft Excel to retain the value type (numeric vs. general vs. text), as previously referenced in restrictions 4 and 5 in the **Editing Restrictions** section.

4.3.1. Alibi Memory Log

- NOTE: The Alibi Memory Log table cannot be uploaded back into the terminal from the PC.

The Alibi Memory Log file is transferred as "Alibi.csv" and is formatted as shown in Table 4-3. Each record contains six comma-separated fields in a variable-length record with <CR><LF> terminating characters at the end of the record. The file displays records ordered from newest to oldest.

Table 4-3: Table Structure of the Alibi.csv Record

Field	Data	Length	Description
1	Date/Time Stamp	20	The date and time that the transaction was created.
2	Transaction Number	7	Sequential number identifying the transaction.
3	Displayed Weight	1 - 7	Displayed weight of the transaction. If tare is taken, this is a net value, if tare is "0", this is a gross value.
4	Tare Weight	1 - 7	The tare weight field from the transaction.
5	Units	1 - 3	Unit of the weight fields. Values: lb, kg, t, ton.
6	Tare Type	1 or 2	Indication if the tare in the transaction is a semi-automatic tare (T) or a preset tare (PT).

Table 4-4 shows a sample of a nine-record-long Alibi Memory file imported into Excel. Note that columns 3 and 4 (non-shaded) were formatted as "General" to preserve the format of the weight data. Columns 1, 2, 5 and 6 (gray-shaded) were formatted in Excel as "Text" to preserve the format of the values.

Table 4-4: Sample of Imported Nine-Record Alibi Memory File

27-Mar-2012 13:50:31	0000019	7.1	0	kg	T
27-Mar-2012 13:50:29	0000018	2.93	0	kg	T
28-Mar-2012 01:16:14	0000017	5.75	4.4	kg	PT
28-Mar-2012 01:15:55	0000016	11.09	2.93	kg	PT
28-Mar-2012 01:15:37	0000015	6.11	0	kg	T
28-Mar-2012 01:10:51	0000014	6.85	3.3	kg	PT
28-Mar-2012 01:10:46	0000013	7.95	2.2	kg	T
28-Mar-2012 01:10:25	0000012	9.05	1.1	kg	T
28-Mar-2012 01:04:03	0000011	10.09	1.14	kg	T

4.3.2. Vehicle Transaction Log

■ NOTE: The Vehicle Transaction Log cannot be uploaded back into the terminal from the PC.

The Vehicle Transaction Log file from the vehicle application is transferred as "Trans.csv" and is formatted as shown in Table 4-5. Each record contains eleven comma-separated fields in a fixed-length format with <CR><LF> terminating characters at the end of the record. The file displays records ordered from newest to oldest.

Table 4-5: Table Structure of the Trans.csv Record

#	Field	Length	Description
1	Transaction Number	7	Sequential number identifying the transaction.
2	Time	8	Time at which the transaction was performed.
3	Date	11	Date on which the transaction was performed.
4	ID	16	A specific A/N vehicle identifier (typically a license number) used to identify the vehicle.
5	Description	20	The A/N description string for the ID.
6	Variable	20	An A/N variable string entered by operator during the transaction if Variable Data is enabled.
7	Mode	4	Temporary (Temp) or permanent (Perm) mode is indicated
8	Gross	7	The gross weight field from the transaction
9	Tare	7	The tare weight field from the transaction
10	Net	7	The net weight field from the transaction
11	Unit	3	Unit of the weight fields. Values: lb, kg, t, ton.

Table 4-6 shows a sample of a four-record-long Vehicle Transaction File imported into Excel. Note that columns 8, 9 and 10 (non-shaded) were formatted as "General" to preserve the format of the weight data. The gray-shaded columns were formatted in Excel as "Text" to preserve their A/N formatting.

Table 4-6: Sample of Imported Four-Record Vehicle Transaction File

0000025	01:17:14	2012-03-28	882-JLK	Red	T75	Temp	52980	12940	40040	lb
0000024	01:15:55	2012-03-28	249-AET	Green	T75	Temp	73580	22500	51080	lb
0000023	01:13:22	2012-03-28	618-PDQ	Red	T74	Temp	68120	19860	48260	lb
0000022	01:11:03	2012-03-28	274-DUG	Blue	T75	Temp	52220	12440	39780	lb

4.3.3. Permanent ID Table

The Permanent ID Table file used by the vehicle application is transferred as "Perm_ID.csv" and is formatted as shown in Table 4-7. Each record contains eight comma-separated fields in a fixed-length format with <CR><LF> terminating characters at the end of the record.

Table 4-7: Table Structure of the Perm_ID.csv Record

#	Field	Length	Description
1	ID	16	A specific A/N vehicle identifier (typically a license number) used to identify the vehicle.
2	Description	20	The A/N description string for the ID.
3	Tare Weight	7	The stored tare weight value.
4	Unit	3	Unit of the tare and total weight values. lb, kg, t, or ton.
5	Variable	20	An A/N variable string used if Variable Data is enabled.
6	Count	7	The number of transactions performed using this Permanent ID
7	Temporary Flag	1	A flag that indicates a permanent tare ID which originally had a value of "00" now has the first of two weights stored in it. This weight is used in the outbound transaction then whichever weight is determined to be the tare value is updated to the record and the flag is removed.
8	Total	11	Total net weight value associated with all transactions performed using this Permanent ID.

Table 4-8 shows a sample of a four-record-long Vehicle Permanent ID Table imported into Excel. Note that columns 3, 6 and 8 (non-shaded) were formatted as "General" to preserve the format of the weight data. The gray-shaded columns were formatted in Excel as "Text" to preserve their A/N formatting.

Table 4-8: Sample of Imported Four-Record Vehicle Permanent ID Table

882-JLK	Pings	12940	lb	T75	0		0
249-AET	Smith #1	22500	lb	T75	0		0
618-PDQ	Smith #6	19860	lb	T74	0		0
274-DUG	Grayson #4	12440	lb	T75	0		0

4.3.4. Target Table

The Target Table file from the vehicle application is transferred as "Target.csv" and is formatted as shown in Table 4-9. Each record contains eight comma-separated fields in a variable-length format with <CR><LF> terminating characters at the end of the record.

Table 4-9: Table structure of the Target.csv record

#	Field	Length	Description
1	ID	1 - 16	Unique identifier for target record
2	Description	0 - 20	Description of the target record
3	Target Weight	1 - 7	Target value to be used for comparison

#	Field	Length	Description
4	Weight Unit	1 - 3	Weight unit for target value: g, kg, lb, t, ton
5	Minus Tolerance (or Under Limit)	1 - 7	Acceptable tolerance under the target weight (or minimum acceptable weight)
6	Plus Tolerance (or Over Limit)	1 - 7	Acceptable tolerance over the target weight (or maximum acceptable weight)
7	Count	1 - 7	Number of times this ID has been accumulated
8	Total	1 - 11	Total weight accumulated for this ID

Table 4-10 shows a sample of a three-record-long Checkweighing Target Table imported into Excel. Note that columns 3, 5 through 8 (non-shaded) were formatted as "General" to preserve the format of the weight data. The gray-shaded columns were formatted in Excel as "Text" to preserve their A/N formatting.

Table 4-10: Sample of Imported Three-Record Checkweighing Target Table

129864	#6 x 1 Screw	2.00	kg	0.02	0.01	0	0
109871	8mm x 25 Bolt	2.00	kg	0.02	0.01	0	0
111431	10mm x 25 Bolt	3.00	kg	0.02	0.01	0	0

4.3.5. Counting ID Table

The Counting ID Table file from the vehicle application is transferred as "Count.csv" and is formatted as shown in Table 4-11. Each record contains seven comma-separated fields in a variable-length format with <CR><LF> terminating characters at the end of the record.

Table 4-11: Table structure of the Count.csv record

#	Field	Length	Description
1	ID	1 - 2	Unique identifier for ID record, values from 01 to 99 can be used
2	Description	0 - 20	Description of the ID record
3	Tare Weight	7	Tare value to be used. If value is 0.00 then the tare value is cleared when the record is recalled.
4	Weight Unit	1 - 3	Weight unit for target value
5	Average Piece Weight	7	Average piece weight for the part to be counted.
6	Count	7	Number of times this ID has been accumulated, 1500000 max
7	Total	11	Total weight accumulated for this ID, all 9s max

Table 4-12 shows a sample of a four-record-long Counting ID Table imported into Excel. Note that columns 3, 5, 6 and 7 (non-shaded) were formatted as "General" to preserve the format of the numeric data. The gray-shaded columns were formatted in Excel as "Text" to preserve their A/N formatting.

Table 4-12: Sample of Imported Four-Record Counting ID Table

01	Red Gizmo	0.5	kg	0.0011	3	3977
02	Blue Gizmo	0.5	kg	0.0022	7	15868
03	Green Gizmo	0.5	kg	0.0033	4	4314
04	Pink Gizmo	0.5	kg	0.0044	3	2284

4.3.6. Error Log (POWERCELL Only)

- The POWERCELL Error Log cannot be uploaded back into the terminal from the PC.

The Error Log file is transferred as "errlog.csv" and is formatted as shown in Table 4-13. Each record contains five comma-separated fields in a fixed-length record with <CR><LF> terminating characters at the end of the record. The file displays records ordered from newest to oldest.

Table 4-13: Table Structure of errorlog.csv Record

#	Field	Description
1	Timestamp	Date and time the error is detected and recorded
2	Severity	Severity code "I" indicates informational help for service
3	Source	A source of "A" indicates the error is related to the PDX/GDD scale
4	Event Code	Refer to Event Code structure in the Technical Manual
5	Message	Error description associated with event code

Table 4-14: Sample of Imported Error Log File

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	12/18/2013 2:57 I		A	1035b	CELL 3 NO RESPONSE														
2	12/18/2013 2:57 I		A	1025b	CELL 2 NO RESPONSE														
3	12/18/2013 2:57 I		A	10179	CELL 1 NOT FOUND														
4	12/18/2013 2:57 I		A	10679	CELL 6 NOT FOUND														
5	12/18/2013 2:11 I		A	1035b	CELL 3 NO RESPONSE														
6	12/17/2013 23:15 I		A	1035b	CELL 3 NO RESPONSE														

4.3.7. Performance Log (POWERCELL Only)

- The POWERCELL Performance Log cannot be uploaded back into the terminal from the PC.

The Performance Log file is transferred as "perflog.csv" and is formatted as shown in Table 4-15. Each record contains 28 comma-separated fields in a fixed-length record with <CR><LF> terminating characters at the end of the record. The file displays records ordered from newest to oldest.

Table 4-15: Table Structure of perflog.csv Record

Field #	Data Field	Description
1	Date	Date when the record was generated.
2	Time	Time when the record was generated.
3	Node	PDX cell node address.
4	Serial Number	The unique factory serial number embedded in the cell.
5	Cell Counts	Load cell counts at the time the record was generated.
6	Com Errors	Total number of cell communication errors.
7	Min Supply Voltage	Minimum cell input supply voltage measured in millivolts.
8	Last Supply Voltage	Last measured cell input supply voltage in millivolts.
9	CanH Dominant Voltage	Cell CAN-High voltage recorded for Dominant mode in millivolts. ¹
10	CanL Dominant Voltage	Cell CAN-Low voltage recorded for Dominant mode in millivolts. ¹
11	CanH Recessive Voltage	Cell CAN-High voltage recorded for Recessive mode in millivolts. ¹
12	CanL Recessive Voltage	Cell CAN-Low voltage recorded for Recessive mode in millivolts. ¹
13	Major Overvoltage Count	Total number of severe or long term over-voltage events detected by the IND246 POWERCELL for all connected cells. Possible causes include a near lightning strike or a short circuit.
14	Major Undervoltage Count	Total number of severe or long term under-voltage events detected by the IND246 POWERCELL for all connected cells. Possible causes include a near lightning strike or an overloaded supply.
15	Minor Overvoltage Count	Total number of intermittent over-voltage events detected by the IND246 POWERCELL for all connected cells. Possible causes include a distant lightning strike or a short circuit.
16	Minor Undervoltage Count	Total number of intermittent under-voltage events detected by the IND246 POWERCELL for all connected cells. Possible causes include a distant lightning strike or an overloaded supply.
17	Temperature Deviation	Not supported, always zero
18	Current Temperature	Not supported, always zero
19	Maximum Temperature	Not supported, always zero
20	Minimum Temperature	Not supported, always zero
21	Gas Concentration	Not supported, always zero
22	Zero Drift Errors	Total number of Zero Drift errors

Field #	Data Field	Description
23	Zero Drift Value	Current Zero Drift value in primary weight units
24	Cell Overloads	Reserved but not supported
25	Average Overload Weight	Reserved but not supported
26	Symmetry Errors	Not supported, always zero
27	Symmetry Difference	Not supported, always zero
28	Total Transactions	Total number of print transactions for a specific scale.

Table 4-16: Sample of Imported Performance Log File

The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	1/3/2014	5:47:39	10	7280200519	24	23	24247	24247	4193	830	2389	2389	0	0	0	0	0	0	0
2	1/3/2014	5:47:39	9	7280060428	382	23	24424	24424	4193	786	2389	2367	0	0	0	0	0	0	0
3	1/3/2014	5:47:39	8	7279499007	207368	23	24389	24389	4193	808	2389	2389	0	0	0	0	0	0	0
4	1/3/2014	5:47:39	7	7279300267	231	23	24283	24283	4215	830	2411	2434	0	0	0	0	0	0	0
5	1/3/2014	5:47:39	6	7279230231	225	23	24318	24318	4260	830	2434	2434	0	0	0	0	0	0	0
6	1/3/2014	5:47:39	5	7279520221	268	23	24353	24353	4215	853	2411	2411	0	0	0	0	0	0	0
7	1/3/2014	5:47:39	4	7279120146	1360	23	24531	24531	4260	808	2434	2434	0	0	0	0	0	0	0
8	1/3/2014	5:47:39	3	7279490129	283	23	24283	24283	4171	853	2389	2411	0	0	0	0	0	0	0
9	1/3/2014	5:47:39	2	7279200088	228	23	24566	24566	4171	808	2389	2411	0	0	0	0	0	0	0
10	1/3/2014	5:47:39	1	7281310023	95	23	24247	24247	4148	830	2389	2389	0	0	0	0	0	0	0

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For more information

Mettler-Toledo, LLC

1900 Polaris Parkway
Columbus, OH 43240
Phone 800 438 4511
Fax 614 438 4900

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