

# AP4600 Multifunction Tag Programmer

## User Guide

16-4600-002 Rev B 4/18

TransCore's AP4600 Multifunction Tag Programmer is a compact device used for reading and writing data to TransCore's suite of toll, parking, access, and transportation tags, including eGo® and eGo Plus tags formatted for ATA, Wiegand, and Title 21.



## Purpose of This Guide

---

This user guide is intended for skilled personnel (including technicians and engineers) to provide information for setting up and using the AP4600 Multifunction Tag Programmer. This guide describes the steps to import the required license certificate to a host computer system. It also shows how to program and read tags with the programmer and explains how to create and use batch files.

**WARNING TO USERS IN THE UNITED STATES**  
**FCC RADIO FREQUENCY INTERFERENCE STATEMENT**  
**47 CFR §15.105(A)**

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency (RF) energy and may cause harmful interference to radio communications if not installed and used in accordance with the instruction manual. Operating this equipment in a residential area is likely to cause harmful interference, in which case, depending on the regulations in effect, the users may be required to correct the interference at their own expense.

**NO UNAUTHORIZED MODIFICATIONS**  
**47 CFR §15.21**



***CAUTION: This equipment may not be modified, altered, or changed in any way without permission from TransCore LP. Unauthorized modification may void the equipment authorization from the FCC and will void the TransCore warranty.***

**TRANSCORE, LP**  
**USA**

© 2016-2018 TransCore, LP. All rights reserved. TRANSCORE is a registered trademark and is used under license. All other trademarks are the property of their respective owners. Contents are subject to change. Printed in the U.S.A.

For further information, contact:

TransCore  
8600 Jefferson Street NE  
Albuquerque, New Mexico 87113 USA

**TransCore Technical Support**

Web: [www.transcore.com/rfidsupport](http://www.transcore.com/rfidsupport)

Phone: (505) 856-8007

# Table of Contents

---

- Purpose of This Guide .....i
- Chapter 1 Setting Up the AP4600 Programmer .....1**
  - Required Supplies .....1
  - Install the Tag Programmer Host Software .....1
  - Set Up the Tag Programmer .....1
  - Install the USTP Hardware Driver ..... 2
  - Import the AP4600 License Certificate ..... 3
  - Start the AP4600 Host Software Application ..... 4
- Chapter 2 Host Software Application ..... 5**
  - Use the AP4600 Host Software Application. .... 5
- Chapter 3 Getting Tag Data ..... 9**
  - Positioning Tags on the AP4600 Programmer ..... 9
  - Reading and Writing Tag Data. .... 12
  - Downgrading Tags ..... 16
  - Using Batch Files. .... 17
  - Data Logs .....20
- Chapter 4 Printing and Troubleshooting ..... 24**
  - Optional Customer-Supplied Equipment. .... 24
  - Selecting the Print Labels Option ..... 24
  - Helpful Information ..... 25
  - Functions and Features ..... 25
  - Diagnosing System Problems ..... 25
- Index .....I

## List of Figures

---

Figure 1 Ports on Rear Panel of AP4600 Tag Programmer .....	2
Figure 2 Prompt to Install Device Driver .....	2
Figure 3 About USTP Screen .....	3
Figure 4 Status Indicator Showing License File is Invalid .....	4
Figure 5 Status Indicator Showing License File is Valid .....	4
Figure 6 USTP View.....	6
Figure 7 Title 21 View .....	6
Figure 8 Extended Data View .....	7
Figure 9 Rail View.....	8
Figure 10 Hang Tag Placement on Programmer Target Area .....	9
Figure 11 Windshield Sticker Tag Placement on Programmer Target Area .....	10
Figure 12 Hard Case Toll Tag Placement on Programmer Target Area .....	10
Figure 13 Transportation Tag Placement on Programmer Target Area .....	11
Figure 14 Placement of AT5417/AT5419 on Programming Bracket.....	11
Figure 15 Successful ATA read of hex data in USTP View.....	13
Figure 16 Successful Title 21 read in Title 21 View.....	13
Figure 17 Successful SeGo read of hex data in Extended Data View.....	14
Figure 18 Successful SeGo read of AAR data in Rail View .....	14
Figure 19 Successful SeGo write of Wiegand data in USTP View.....	16
Figure 20 Selecting Downgrade Tags menu option.....	16
Figure 21 Write Buttons when Downgrade Tags is Enabled.....	17
Figure 22 Opening a Batch File Menu .....	19
Figure 23 End of Batch File Message.....	20
Figure 24 Opening a Read Log from the Menu .....	21
Figure 25 Read Log Status.....	21
Figure 26 Sample Data Log .....	23
Figure 27 Selecting Print Labels.....	24

# List of Tables

---

Table 1 Tag Data Format Identifiers..... 17

Table 2 Log Data Fields .....22

Table 3 Protocol Field .....22

Table 4 Data Format Field .....23

# Chapter 1 Setting Up the AP4600 Programmer

## Required Supplies

---

You need the following additional materials and/or tools to complete the programmer and license certificate installation:

- Host PC using Windows® operating system with at least one USB port
- USB flash drive with field configuration software provided with tag programmer
- USB data cable provided with tag programmer
- Power adapter with power cable provided with tag programmer
- Tags for programming
- License certificate (provided by TransCore Order Administration via e-mail)

## Install the Tag Programmer Host Software

---

*Note: You must have administrative privileges on your PC to install this software. Contact your IT department for assistance.*

1. Insert the USB flash drive with the field configuration software into the USB port on the host computer.
2. Access the USB flash drive to find the user instructions and the USTP Installer files.
3. Double click on the installer file. Follow the on-screen prompts to load the AP4600 Multifunction Tag Programmer host software to the computer desktop.



**CAUTION:**

***Do not start the host software program until you are prompted to do so.***

## Set Up the Tag Programmer

---

*Note: The AP4600 programmer is designed to be used in an office environment.*

1. Place the tag programmer on a flat surface. [Figure 1](#) shows the ports on the rear panel of the programmer.
2. Connect the USB data cable from the port at the rear of the programmer to one of the host computer's USB ports.
3. Insert the power plug from the power adapter to the power supply port at the rear of the programmer. Plug the power cord into a standard 120V AC wall outlet.
4. Toggle the power switch to the **ON** position.

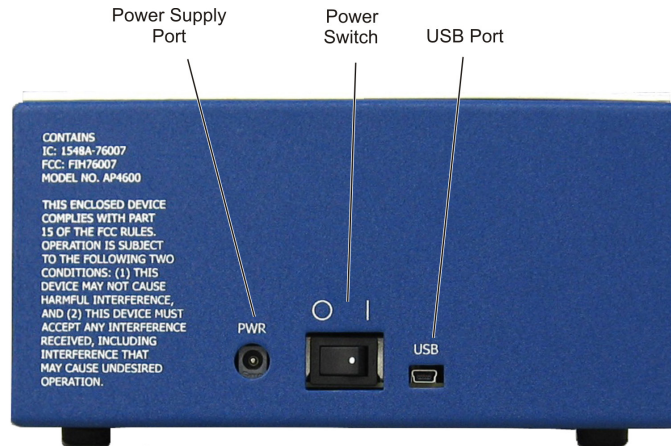


Figure 1 Ports on Rear Panel of AP4600 Tag Programmer

## Install the USTP Hardware Driver

*Note: This section shows general guidelines for installation from a computer running Windows 7. You may find these steps are slightly different depending on your operating system.*

1. When you power on the AP4600 Programmer, a prompt should appear on the host computer screen (Figure 2). Click **BROWSE** and follow the on-screen instructions to install the new USTP hardware device driver.

*Note: The driver file is located in <C:\TransCore\USTP\Drivers>, unless a different location was selected when the host software was installed.*

2. If a prompt does not appear, the driver may already be installed on the computer. Proceed to “Import the AP4600 License Certificate” on page 3.

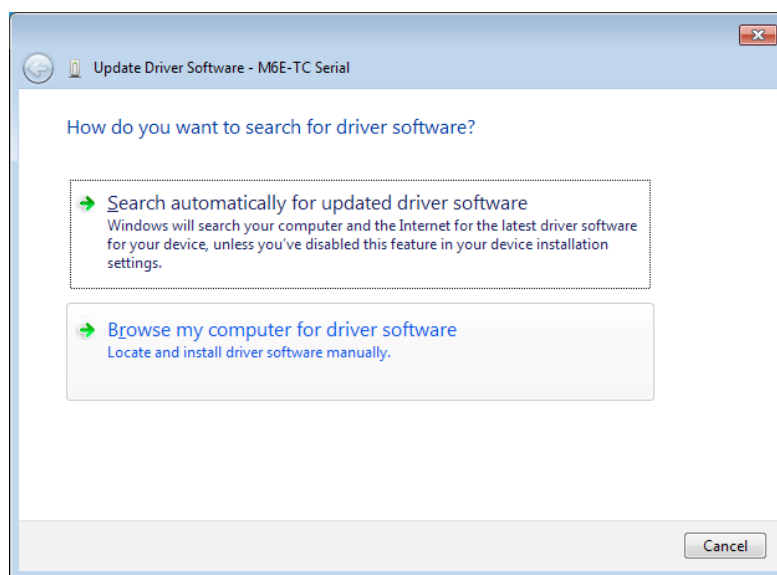


Figure 2 Prompt to Install Device Driver



## Import the AP4600 License Certificate

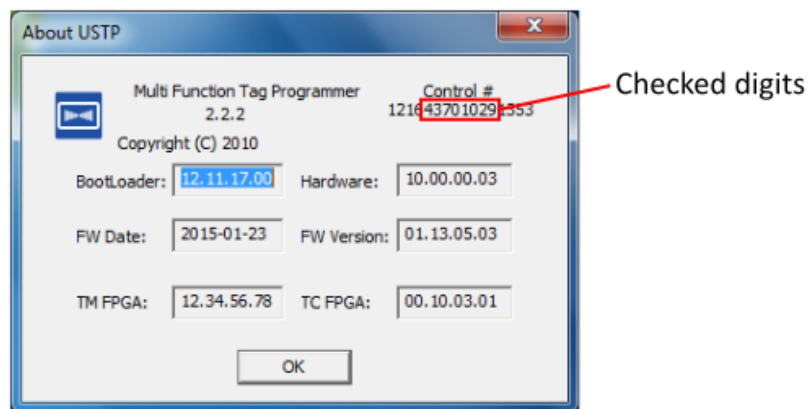
1. You will receive an email from TransCore with the license certificate file attachment. Save this file to a folder that you can easily locate on the computer, such as the desktop.

*Note: Save the e-mail with the original attachment for future reference.*

2. Ensure that the license certificate filename matches the 5th through 12th digits of the programmer control number. To locate the programmer control number, first ensure that the AP4600 is connected to the computer and powered on.
3. Start the AP4600 host software application by double-clicking on the USTP icon on your desktop.

*Note: If a prompt appears saying “COULD NOT OPEN READER”, return to the section “Install the USTP Hardware Driver” on page 2 and contact your IT Department for assistance to install the driver manually; then return to Step 4 in this section.*

4. When the application window opens, click **Help**, then select **About**. The **About USTP** screen displays the firmware and hardware versions of the AP4600 programmer, as well as the programmer control number. **Figure 3** highlights the portion of the control number you will need in order to verify the license certificate file.



**Figure 3 About USTP Screen**

5. Close the About USTP window after you have verified that the license certificate filename matches the indicated portion of the programmer control number.
6. In the main window, click **File**, select **Import**, and then select **License File**. Browse to select the license certificate file that you saved at the beginning of the process (refer to “Install the USTP Hardware Driver” on page 2.) This will become the current active license file. If an updated license file is subsequently received, a repetition of this same process will ensure that the host is working with the latest license file.



### CAUTION:

**If the license certificate does not match the 5th through 12th digits of the AP4600 tag programmer control number, you will not be able to program tags. Contact your TransCore sales representative if you need assistance in getting a valid license certificate.**

## Start the AP4600 Host Software Application

Start the host software application by double-clicking the USTP icon on your desktop. This step activates the license certificate internal check and configures the programmer to your specific licensing and permissions data.

If the license file status indicator does not show **OK**, this indicates a problem with the license file (Figure 4). Recheck the license file control number, and try importing the license file again.

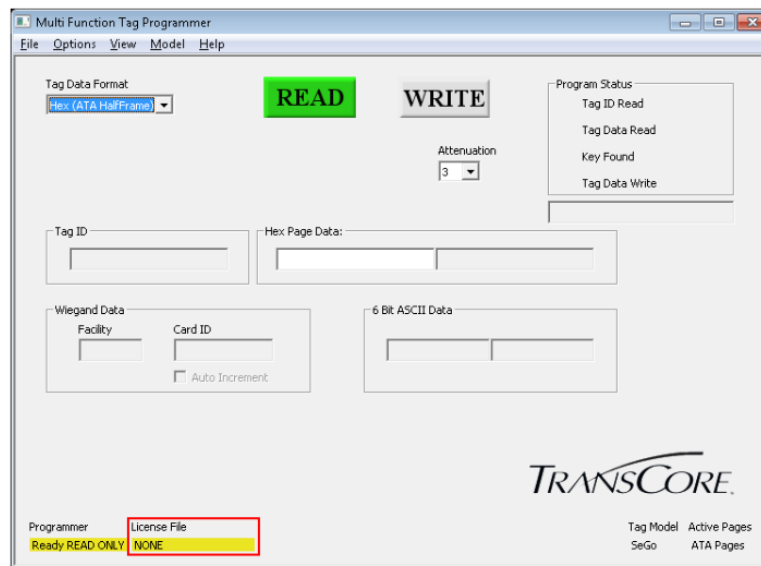


Figure 4 Status Indicator Showing License File is Invalid

If the license file status folder shows **OK** (Figure 5), the license file has been successfully validated and you are ready to program tags.

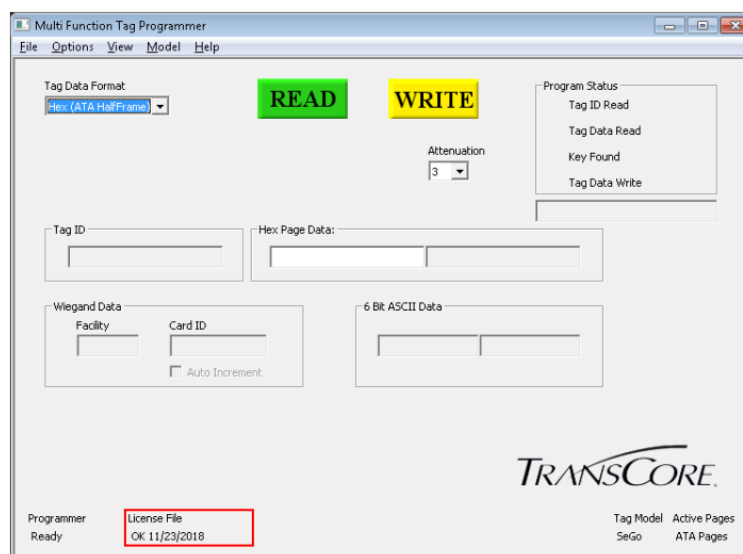


Figure 5 Status Indicator Showing License File is Valid

## Chapter 2 Host Software Application

### Use the AP4600 Host Software Application

---

The AP4600 host software has four views:

1. USTP View
2. Title 21 View
3. Extended Data View
4. Rail View

Each view is used for specific data formats and supports specific tag models, and may have additional features. All views have:

- Attenuation controls
- Read buttons
- Write buttons
- Tag data display area
- Optional area to display status messages

To switch between views, use the **View** menu. To switch tag models, use the **Model** menu. If a tag model is selected that is not supported in the current view, the interface automatically switches to a supported view.

#### USTP View

The **USTP** View ([Figure 6](#)) is used to read and write raw hex data, 6-bit ASCII data, or Wiegand data from and to SeGo and eGo tags, and to read the same data from ATA tags. A Single Page format is available to read and write raw hex data to and from non-ATA data pages. The USTP View supports batch operation, and logging data to a file.

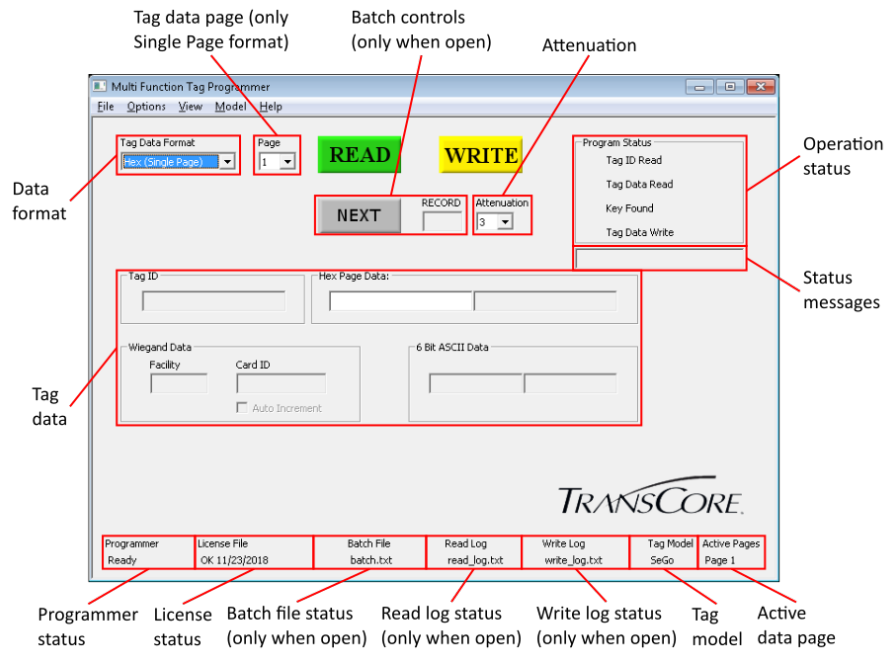


Figure 6 USTP View

## Title 21 View

The Title 21 View (Figure 7) is used to read and ack Title 21 tags.

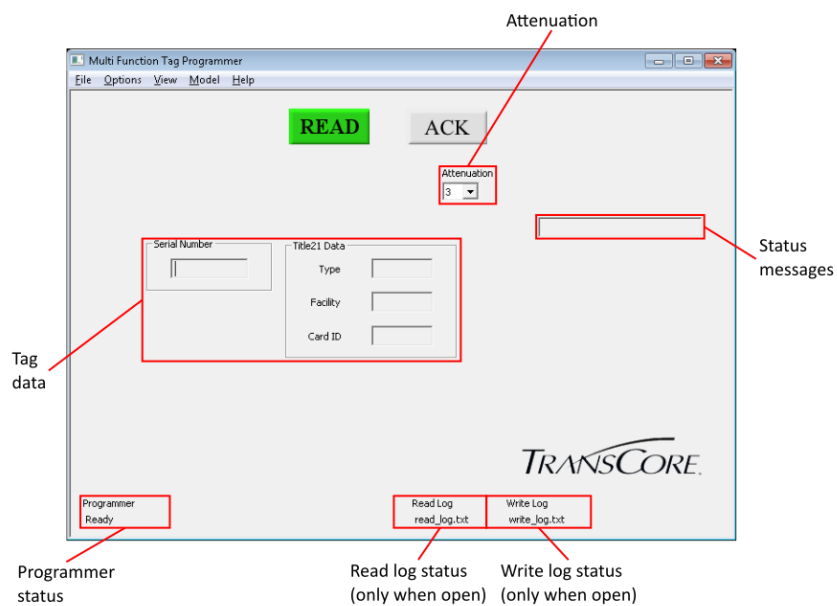
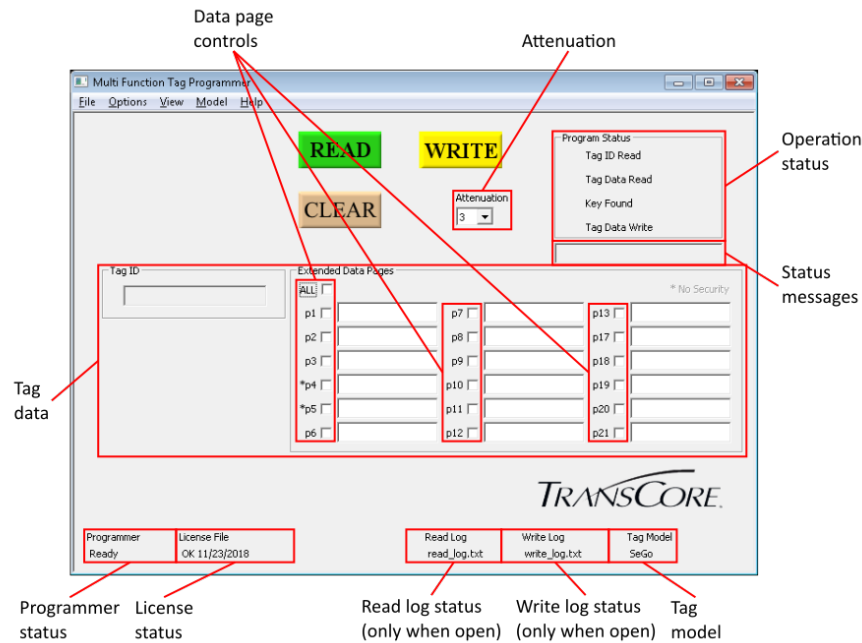


Figure 7 Title 21 View

## Extended Data View

The Extended Data View (Figure 8) is used to read and write raw hex data to arbitrary sets of single non-ATA data pages. Data pages can be individually selected in any combination for each operation. Operations are performed in sequence for selected pages. An error will abort all remaining page operations.



**Figure 8 Extended Data View**

Some tags may not support reading or writing to certain pages and will always “error out” on those pages. These pages must be deselected for operations on these tags.

## Rail View

The Rail View (Figure 9) is used to read and write AAR data and 6-bit ASCII data to and from SeGo tags, and to read the same data from ATA tags. Only railcar data can be written. Writes only support AES encryption unless the license file and the radio model both support AAR encryption.

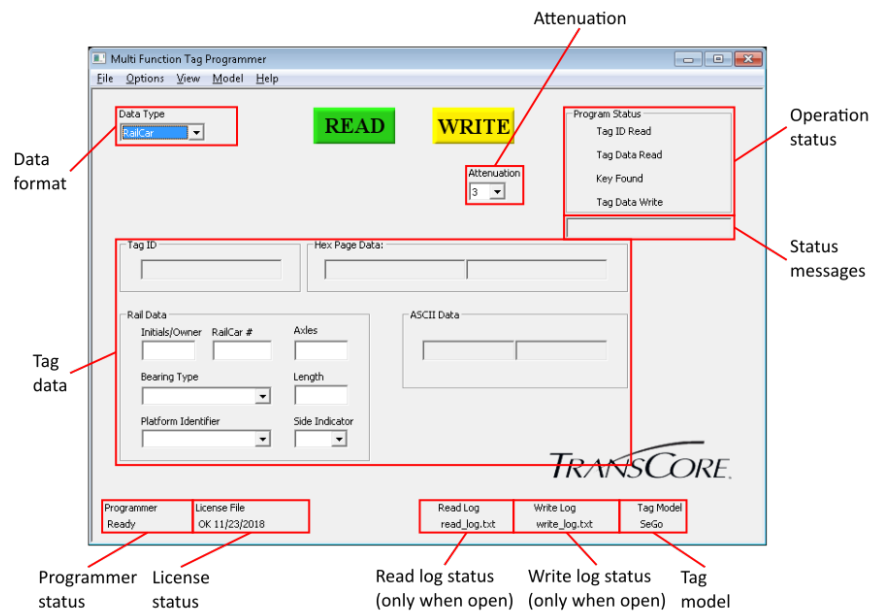


Figure 9 Rail View

## Chapter 3 Getting Tag Data

### Positioning Tags on the AP4600 Programmer

#### Read Data from a Tag

Most tags should be placed driver side up in the center of the tag programmer target area.



**CAUTION:**

*Proper placement on the programmer is critical when programming sticker and hang tags. Be sure to orient the tag between the polarization axis lines. For best results, gently press the sticker tags flat against the surface of the programmer with your hand.*

#### Hang Tags

Figure 10 shows the correct placement and orientation of a hang tag.

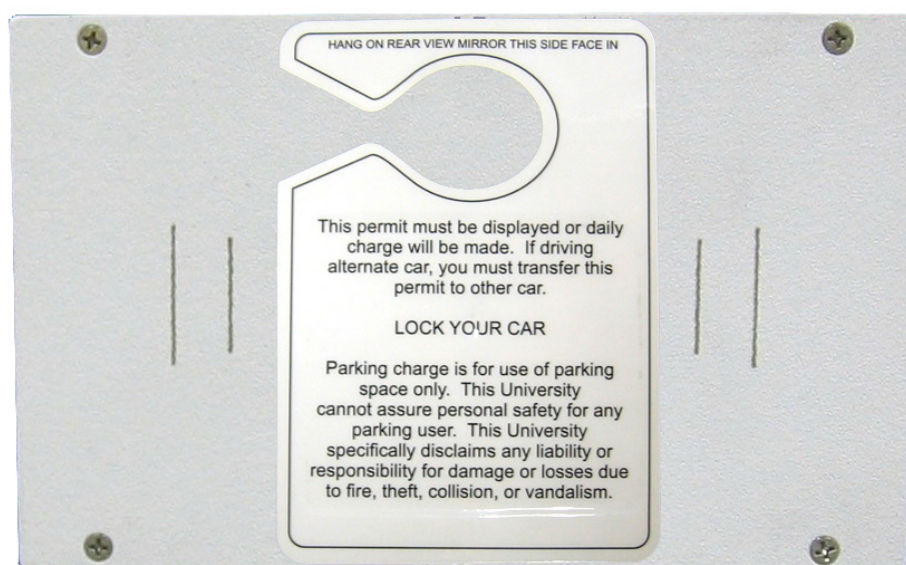


Figure 10 Hang Tag Placement on Programmer Target Area

## Windshield Sticker Tags

Figure 11 shows similar placement and orientation for a windshield sticker tag.



Figure 11 Windshield Sticker Tag Placement on Programmer Target Area

## Hard Case Tags

Hard case tags are placed face up and centered on the programmer target area as shown in Figure 12.



Figure 12 Hard Case Toll Tag Placement on Programmer Target Area



## Intermodal Tags

Intermodal tags should be placed face down, as shown in [Figure 13](#).



Figure 13 Transportation Tag Placement on Programmer Target Area

## AT5417/AT5419 Externally Powered Signal Tag

1. The AT5417/AT5419 Signal Tag requires a custom programming bracket and external power in order to program the tag.
2. Position the programming bracket on top of the AP4600 Tag Programmer.
3. Place the signal tag face up on the bracket. Align the tag by placing the twisted pair interface cable into the notch on the bracket ([Figure 14](#)). The tag can be oriented in either direction.



Figure 14 Placement of AT5417/AT5419 on Programming Bracket

*Note: The programming bracket can be permanently attached to the AP4600 Programmer with four 6-32, 1.5" long machine screws (not included).*

4. Apply external power to the tag. Refer to the AT5417/AT5419 Externally Powered Signal Tag Installation Guidelines for details on power requirements.

## Reading and Writing Tag Data

---

### Reading Data from a Tag



**CAUTION:**

***Be sure there is only one tag at a time within the read range. Multiple tags in the range area may cause the read to fail.***

Perform the following steps to read data from a tag:

1. Select the correct tag model from the **Model** menu.  
*Note: Only tags of the selected model will be detected.*
2. Select the desired view from the **View** menu. Be sure the selected view supports the selected tag model.
3. Configure the view appropriately. For example, select the correct tag data format in the **USTP** View, or select the desired pages in the **Extended Data** View.
4. Position the tag on the AP4600. Adjust the attenuation if necessary.
5. Press the **Read** button or the F1 hot key.
6. The results of the read operation are displayed.
  - a. If the read was successful, the tag data appears in the appropriate boxes.
  - b. If the read failed, a status message appears in one or more boxes including the **Status Message** box (unless Status Messages were deselected in the **Options** Menu).
  - c. If the **Operation Status** area is present, it will indicate the operation status with green for success, red for failure, and yellow or gray for other conditions.

If SeGo, eGo, or ATA data is successfully read, the tag ID and/or raw hex data will always be displayed.

If the read was successful but the data cannot be processed by the current view or selected format (for example, if a Wiegand data format is selected in the **USTP** View but the tag does not contain Wiegand data, or if the tag contains an unsupported AAR data type in the **Rail** View), no other data will be shown and a message will be shown in the **Status Message** box.

Examples of successful reads are shown in [Figure 15](#), [Figure 16](#), [Figure 17](#), and [Figure 18](#).

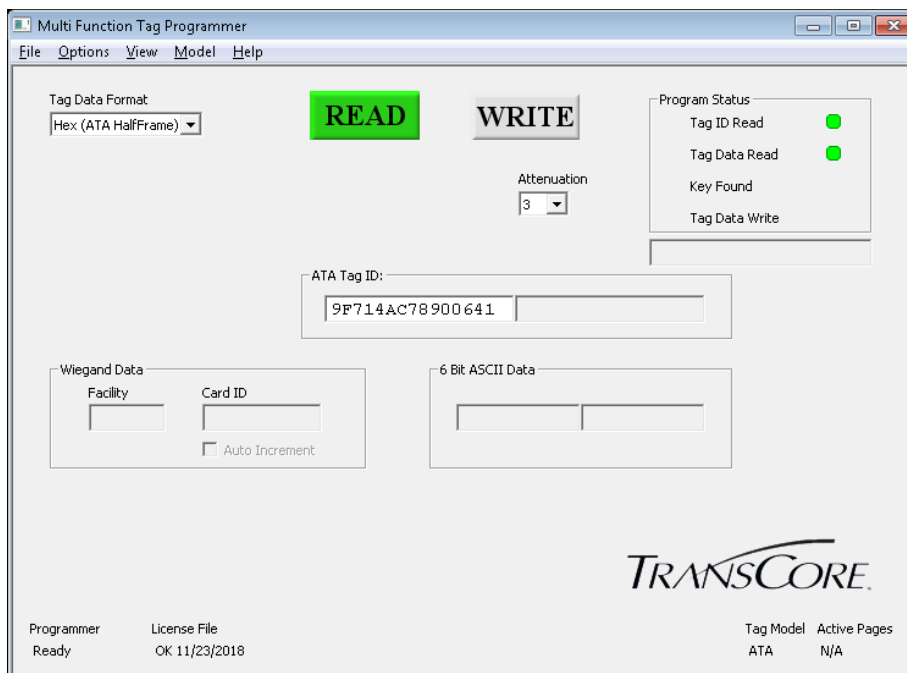


Figure 15 Successful ATA read of hex data in USTP View

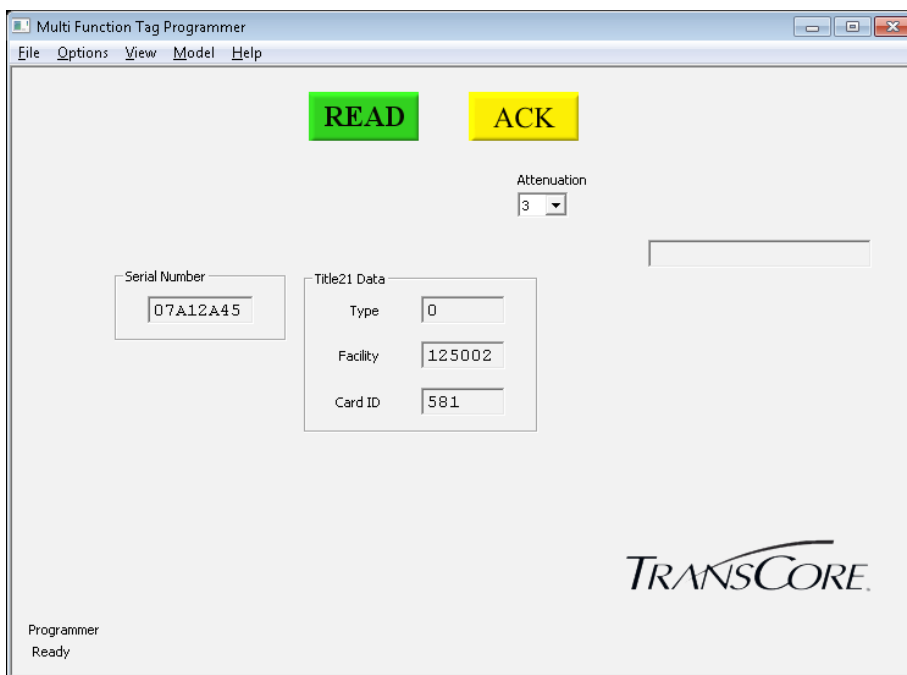


Figure 16 Successful Title 21 read in Title 21 View

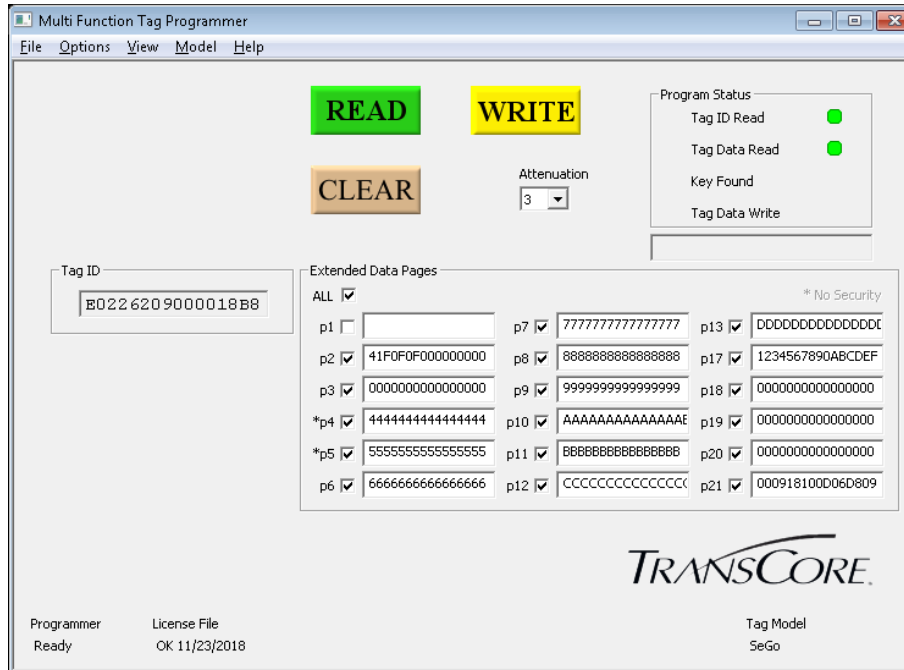


Figure 17 Successful SeGo read of hex data in Extended Data View

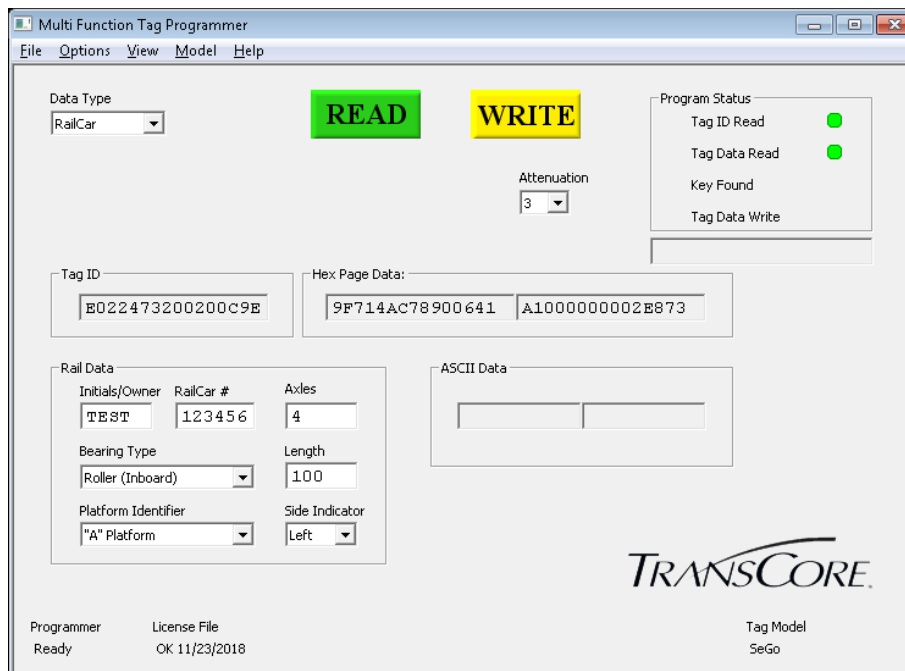


Figure 18 Successful SeGo read of AAR data in Rail View

## Writing Data to a Tag



### CAUTION:

***Be sure there is only one tag at a time within the read range. Multiple tags in the range area may cause the write to fail.***

Perform the following steps to write data to a tag:

1. Select the correct tag model from the **Model** menu.  
*Note: Only tags of the selected model will be successfully programmed.*
2. Select the desired view from the **View** menu. Be sure the selected view supports the selected tag model.
3. Configure the view appropriately. For example, select the correct tag data format in the **USTP View**, or select the desired pages in the **Extended Data View**.
4. Enter the desired data in the appropriate data box(es).
  - a. Only data boxes appropriate to the selected data format will accept input. All others will be disabled ("grayed-out").
  - b. Incorrect data (for example non-hex data in a hex data box, or a Wiegand Card ID value that is too high) will either be disallowed by the interface or will cause the write to fail.
  - c. Missing data values (for example hex characters after the fifth if only five are entered) are interpreted as zeroes.
5. Position the tag on the AP4600. Adjust the attenuation if necessary.
6. Press the **Write** button or the **F2** hot key.
7. The results of the write operation are displayed.
  - a. If the write failed, a status message appears in one or more boxes including the **Status Message** box (unless Status Messages were deselected in the Options Menu).
  - b. If the **Operation Status** area is present, it will indicate the operation status with green for success, red for failure, and yellow or gray for other conditions.

If SeGo or eGo data is successfully written, the tag is re-read and the data displayed.

An example of a successful write is shown in [Figure 19](#).

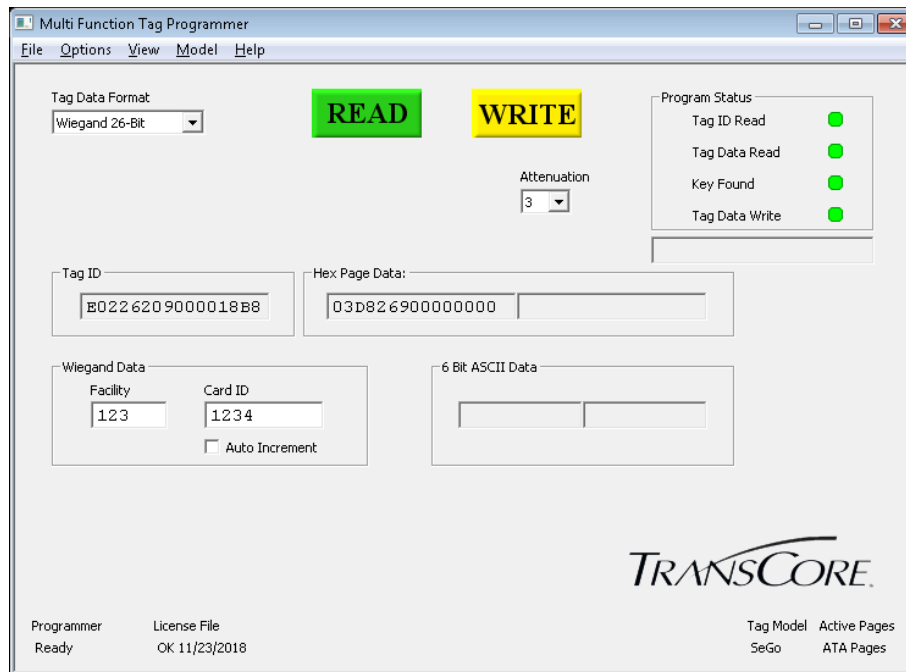


Figure 19 Successful SeGo write of Wiegand data in USTP View

## Downgrading Tags

The E1R USTP host application has the ability to downgrade fullframe tags to halfframe tags when writing data. Perform the following steps to use this feature:

1. Select Downgrade Tags from the **Options** menu as shown in Figure 20.

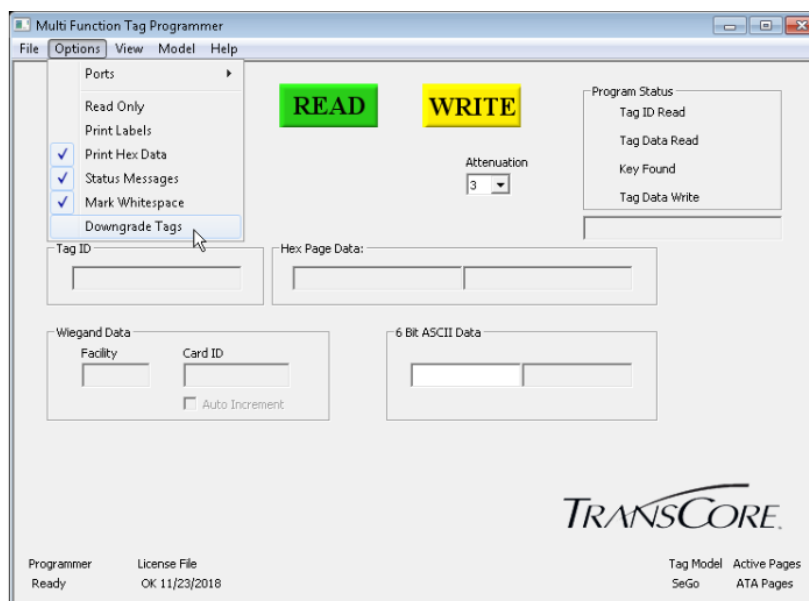


Figure 20 Selecting Downgrade Tags menu option

2. A confirmation prompt will appear. Select **OK** if tags should really be downgraded.

**CAUTION:**

*Once a fullframe tag has been changed to a halfframe tag, it cannot be changed back.*

- When **Downgrade Tags** is enabled, the **Write** buttons are changed as shown in [Figure 21](#).
- While **Downgrade Tags** is enabled, writing data to a fullframe tag irrevocably changes the tag to halfframe.

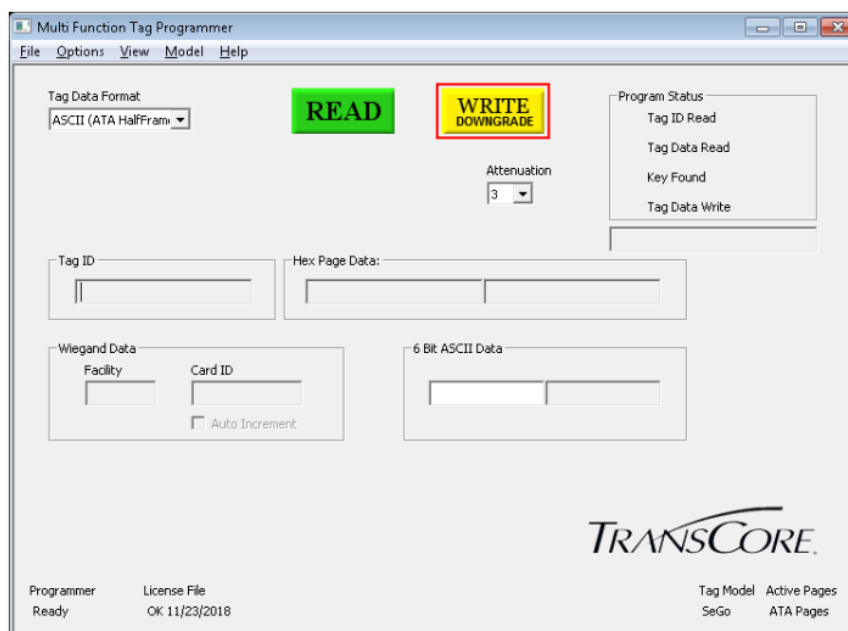


Figure 21 Write Buttons when Downgrade Tags is Enabled

## Using Batch Files

### Creating a Batch File

Batch files must be comma (,) delimited plain text with one data record per line.

Each data record must begin with a Tag Data Format identifier from [Table 1](#). This identifier indicates the **Tag Data Format** for the rest of the records.

Table 1 Tag Data Format Identifiers

Tag Data	Format Identifiers
0	Wiegand 26-Bit
1	Wiegand 34-Bit
2	CardKey 34-Bit
3	McGann 37-Bit

**Table 1 Tag Data Format Identifiers**

Tag Data	Format Identifiers
4	LSU 32-Bit
5	HID 35-Bit
6	U.M. 37-Bit
7	ASCII (ATA Halfframe)
8	ASCII (ATA Fullframe)
9	Hex (ATA Halfframe)
10	Hex (ATA Fullframe)
11	Hex (Single Page)

Data records for each of the Wiegand tag data format identifiers should be followed by comma-separated values for facility and ID fields. For example:

0,255,0001

0,255,0002

0,255,0003

ASCII (ATA Halfframe) tag data format identifiers should be followed by 10 ASCII characters from the 6-bit ASCII character set. For example:

7,ABCDEFGHIX

7,ABCDEFGHIY

7,ABCDEFGHIZ

ASCII (ATA Fullframe) tag data format identifiers should be followed by 20 ASCII characters from the 6-bit ASCII character set. For example:

8,ABCDEFGHIJKLMNOPQRSX

8,ABCDEFGHIJKLMNOPQRSY

8,ABCDEFGHIJKLMNOPQRSZ

Hex (ATA Halfframe) tag data format identifiers should be followed by 15 HEX characters from the hexadecimal character set. For example:

9,ABCDE0123456781

9,ABCDE0123456782

9,ABCDE0123456783

Hex (ATA Fullframe) tag data format identifiers should be followed by 30 HEX characters from the hexadecimal character set. For example:



10,ABCDE01234567890123456789ABCD1

10,ABCDE01234567890123456789ABCD2

10,ABCDE01234567890123456789ABCD3

Raw Hex Data tag data format identifiers should be followed by a field for the number of the page to be written, followed by a data field of 16 Hex characters. For example, for a Write to Page 4:

11,4,1234567890ABCDE1

11,4,1234567890ABCDE2

11,4,1234567890ABCDE3

## Using a Batch File

After creating the batch file, start Batch Programming by selecting **File**, then **Open**, and **Batch File** from the menu (Figure 22).

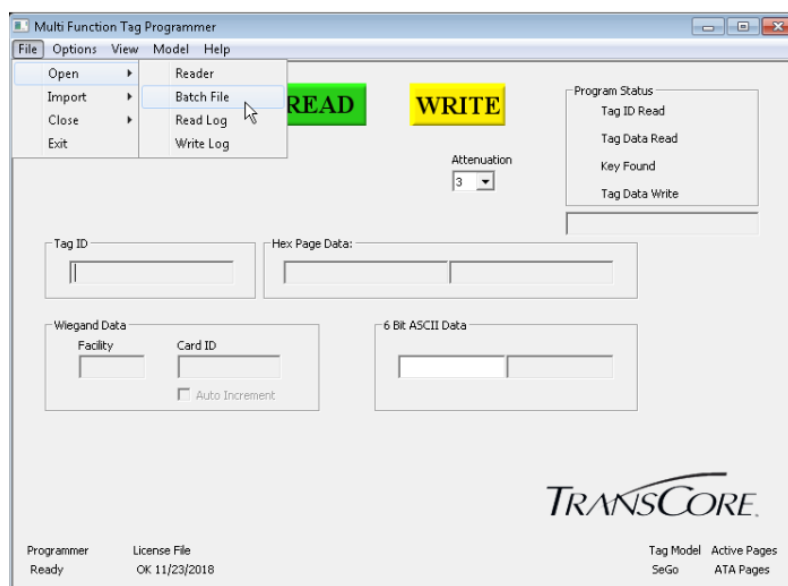


Figure 22 Opening a Batch File Menu

The hot keys **F1** (Read), **F2** (Write), and **F3** (Next Record) can be used for batch processing control.

When processing batch files, the **Tag Data Format** does not need to be selected on the screen. The host will detect the data format type and change the display accordingly. The name of the batch file will be shown along the bottom center of the display. A numeric pointer showing which record is currently loaded will be shown.

Perform the following steps to process the batch file:

1. Press the **Read** button or **F1**. Data from the tag will appear in the data boxes.
2. Press the **Next** button or **F3**. Data from the batch file will appear in the data boxes.
3. Press the **Write** button or **F2**.

If for some reason the host does not write the tag, indicated by a **Program Status** red mark next to the **Tag**

**Data Write** field, the write can be attempted again by pressing the **Write** button. The data for the current write will not be changed until the **NEXT** button is pressed, allowing for multiple write attempts.

When the end of the batch file is reached, a warning notice will be given, and the **NEXT** button will disappear (Figure 23).

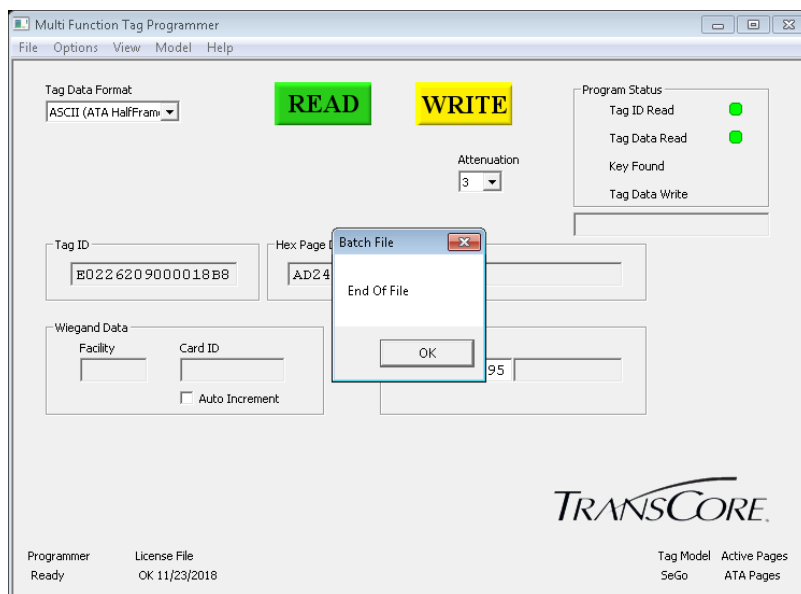


Figure 23 End of Batch File Message

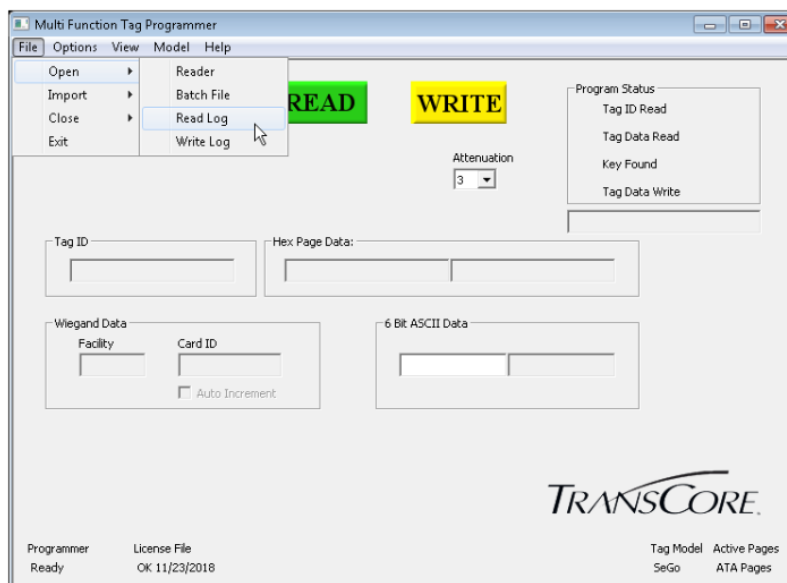
## Data Logs

Data that is read-from and written-to tags can be logged to standard CSV (Comma Separated Value) files.

### Logging Tag Read Data

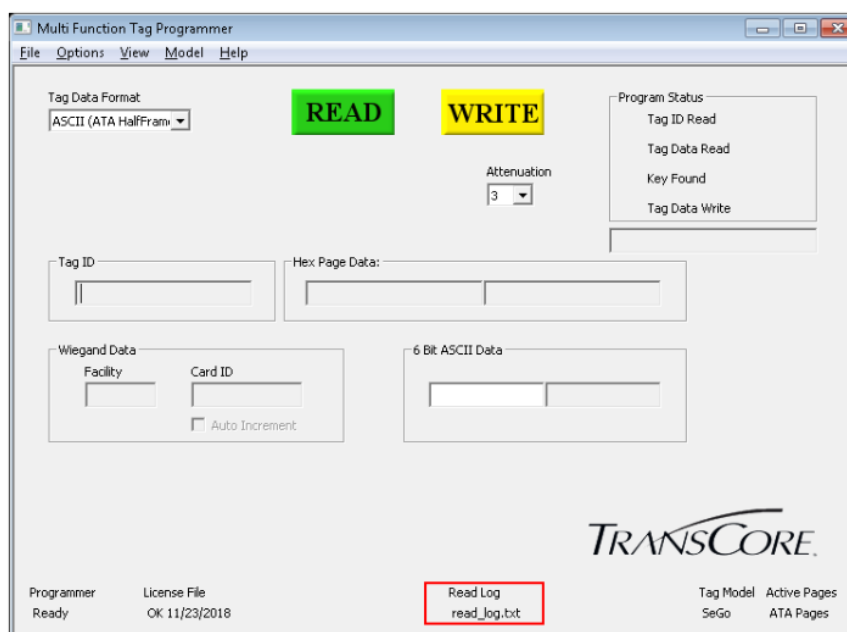
To enable logging of data read from tags, perform the following steps:

1. Select **Open** from the **File** menu and click on **Read Log** as shown in Figure 24.



**Figure 24 Opening a Read Log from the Menu**

2. Choose the desired file name and location from the file dialog.
3. An active read log is displayed in the status area as shown in [Figure 25](#).
4. Any data successfully read from tags while the read log is active will be written to the selected file in the format described in the section [“Data Log Format” on page 22](#). To close the log, select **Close** from the **File** menu and click on **Read Log**.



**Figure 25 Read Log Status**

## Logging Tag Write Data

To enable logging of data written to tags, perform the following steps:

1. Select **Open** from the File menu and click on **Write Log**. Refer to [Figure 24](#).
2. Choose the desired file name and location from the file dialog.
3. An active write log is displayed in the status area. Refer to [Figure 25](#).
4. Any data successfully written to tags while the read log is active will be written to the selected file in the format described in the section, “[Data Log Format](#)” on page 22.
5. To close the log, select **Close** from the **File** menu and click on **Write Log**.

## Data Log Format

Logged data is written in a standard CSV format, with one or more data fields on a line for each record. The data fields are separated by commas. Read data and write data use the same format, with the fields described in [Table 2](#).

**Table 2 Log Data Fields**

Date	Time	Record #	Protocol	Data Format	Decoded Tag Data	Raw Tag Data
YYMMDD	HHMMSS	1 – XXXX	Refer to Protocol Field	Refer to Data Format field	Refer to Decoded Tag Data field	Refer to Raw Tag Data field

**Date field:** The two-digit calendar year, month, and day that the record was created, in local time.

**Time field:** The two-digit hour, minute, and second that the record was created, in local 24-hour time.

**Record # field:** The number of each record in the data file, starting at 1 for the first record in each file and incrementing for each record.

**Protocol field:** One of the values shown in [Table 3](#), corresponding to the tag model of the tag that created the record.

**Table 3 Protocol Field**

Value	Tag Model
ego	eGo
sego	SeGo
ata	ATA
T21	Title21

**Data Format field:** One of the values shown in [Table 4](#), corresponding to the data format selected when the record was created.

**Table 4 Data Format Field**

Value	Data Format
wg26	USTP View, Wiegand 26-Bit
wg34	USTP View, Wiegand 34-Bit
cardk	USTP View, CardKey 34-Bit
mcg37	USTP View, McGann 37-Bit
lsu32	USTP View, LSU 32-Bit
hid35	USTP View, HID 35-Bit
mm37	USTP View, U.M. 37-Bit
ata10	USTP View, ASCII (ATA Halfframe)
ata20	USTP View, ASCII (ATA Fullframe)
hex	USTP View, Hex (ATA Halfframe) or Hex (ATA Fullframe)
raw	USTP View, Hex (Single Page)
t21	Title21 View
0xFF (FF is the byte address in hex)	Extended Data View
aar	Rail View

**Decoded Tag Data field:** A string containing the tag data decoded according to the selected format, or a blank string if the selected format does not indicate decoded data.

**Raw Tag Data field:** The raw hex data read from or written-to the tag.

A sample data record is shown in [Figure 26](#).

```
151222,164810,1,sego,aar,"RCAR TCOR 009999 L 16 32'10" B0 P0 T3",9F6FC2C09C3C647F80000000002E8737
```

**Figure 26 Sample Data Log**

# Chapter 4 Printing and Troubleshooting

## Optional Customer-Supplied Equipment

If you are applying printed labels to tags, TransCore has approved the following printer and label size:

- Brother QL-500 series label printer
- 1<sup>5</sup>/<sub>16</sub>" x 3 1<sup>1</sup>/<sub>2</sub>" labels

## Selecting the Print Labels Option

### Printing a label for each tag

Select **Options** then **Print Labels** from the menu (Figure 27). The approved label printer is a Brother QL-500 series printer.

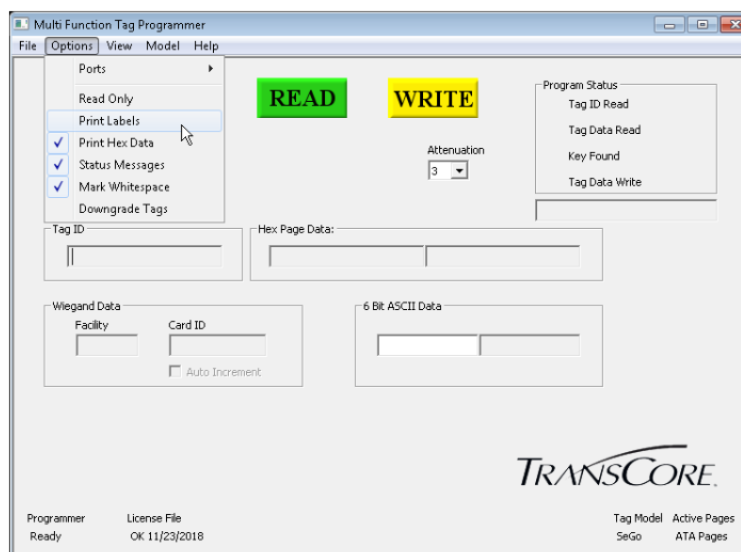


Figure 27 Selecting Print Labels

Use standard 1<sup>5</sup>/<sub>16</sub>-inch tall by 3 1<sup>1</sup>/<sub>2</sub>-inch wide label forms in the printer. Selecting **Print Labels** prints the data field information of the current programmed tag onto a label. The label prints after the tag is successfully programmed.

*Note: If you select **Print Labels** when no printer is attached to the PC, the host program switches off the **Print Labels** function. Reconnect printer and select **Print Labels** again.*

*Note: Before printing labels, configure the printer for landscape orientation printing using the **Printer Setup** screen or at **Start>Settings>Printers and Faxes** from the **Windows Start** menu. The host software does not set the label orientation.*

*Note: Use **Print Hex Data** from the **Options** menu to control whether the **Hex Data** line is printed.*

If you have selected **Print Labels**, a label prints when the tag is programmed. Affix this label to the tag.

## Helpful Information

---

The AP4600 Tag Programmer reads from and writes to tags having the Super eGo (SeGo), and eGo tag protocols, and reads from Title 21/Allegro and ATA tag protocols.

The software reads from and writes to tags having the following tag data formats:

- Wiegand 26-Bit
- Wiegand 34-Bit
- CardKey 34-Bit
- McGann 37-Bit
- LSU 32-Bit
- HID 35-Bit
- U.M. 37-Bit
- 6-bit ASCII
- Raw hex
- AAR (S-918)

## Functions and Features

---

The AP4600 Tag Programmer Host Software provides the following helpful functions and features:

- Read and write success and failure are indicated by visual and audible cues
- Built-in tag log file output function (See Help feature in host software for more information)
- Built-in batch programming function
- Label printing supported using a Brother QL-500 series printer and  $1\frac{5}{16}$ " x  $3\frac{1}{2}$ " labels

The current settings (tag model, view, data format, etc) are retained and used the next time the software starts.

## Diagnosing System Problems

---

Should you encounter trouble when using the AP4600 Tag Programmer, perform the following diagnostic steps:

1. Reposition the tag on the target area and try reading again.
2. If Step 1 does not correct the problem, close the host software, cycle power to the programmer by toggling the power switch, and re-open the host software.
3. If Steps 1 and 2 do not correct the problem, contact TransCore Technical Support for further assistance.

# Index

---

## A

AAR. See **Association of American Railroads**  
AP4600 Host Software Application 4, 5–8. See also **Host Software Application**  
AP4600 License Certificate 3. See also **License Certificate**

## B

Batch Files 17, 17–23  
    Creating 17–23  
    Using 17–23, 19

## C

CSV. See also **comma separated value**

## D

Data Logs 20–23  
    Data Format Fields 23  
    Data Log Format 22  
    Logging Tag Read Data 20–23  
    Logging Tag Write Data 22–23  
    Sample Data Log 23  
Downgrading Tags 16

## E

Extended Data View 7, 7–8

## F

field configuration software 1–4. See also **USTP Installer**

## H

Helpful Information  
    Functions and Features  
        **Diagnosing System Problems** 25

## O

Order Administration 1–4

## P

power  
    adapter 1–4  
    cord 1–4  
    plug 1–4  
    supply port 1–4  
Printing  
    Print Labels Option  
        **Helpful Information**  
            *Functions, Features* 24  
    Print Labels Option 24

## R

Rail View 8  
Read Data 9–23  
    Reading Data from a Tag 12

## T

Tags  
    AT5417/AT5419 Externally Powered Signal Tag 11  
    Hang Tags 9  
    Hard Case Tags 10  
    Intermodal Tags 11  
    Windshield Sticker Tags 10  
Technical Support iii–vi  
Title 21 View 6

## U

USB  
    communications cable 1  
    flash drive 1–4  
    port 1–4  
USTP  
    icon 3–4, 4  
    USTP Hardware Driver 2–4  
    USTP View 5–6, 6

## W

Writing Data to a Tag 15



**For more information:**

**Sales Support**  
800.923.4824

**Technical Support**  
505.856.8007

**transcore.com**



© 2016-2018 TransCore L.P. All rights reserved. TRANSCORE is a registered trademark, and is used under license. All other trademarks listed are the property of their respective owners. Contents subject to change. Printed in the U.S.A.