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OPERATION GUIDE

HICO/LOCO ENCODING UTILITY

MSE SERIES

Version 2.0

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MSE Hico/Loco Encoding Utility

Operation Guide

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About MSE Utility

This productivity tool is intended primarily for use with ISO/ANSI-compliant magstripe cards. ISO or ANSI specifies 7 bits per character as the standard data format for track 1, and 5 bits per character for both track 2 and track 3. ISO or ANSI also specifies 210 BPI as the encoding density for tracks 1 and 3, and 75 BPI for track 2. We use ISO, ANSI, or ISO/ANSI interchangeably throughout this document.

This utility also provides support for non-ISO/ANSI card reading and writing.

Initial Setup

Select the RS-232 parameters and Emulation Mode of the utility to be compatible with the DIP switch settings of the encoder to establish communications between the software and the hardware. The COM port could be a physical port where the encoder is attached to or a USB Serial virtual port.

Also choose the write coercivity to match that of your magstripe card.

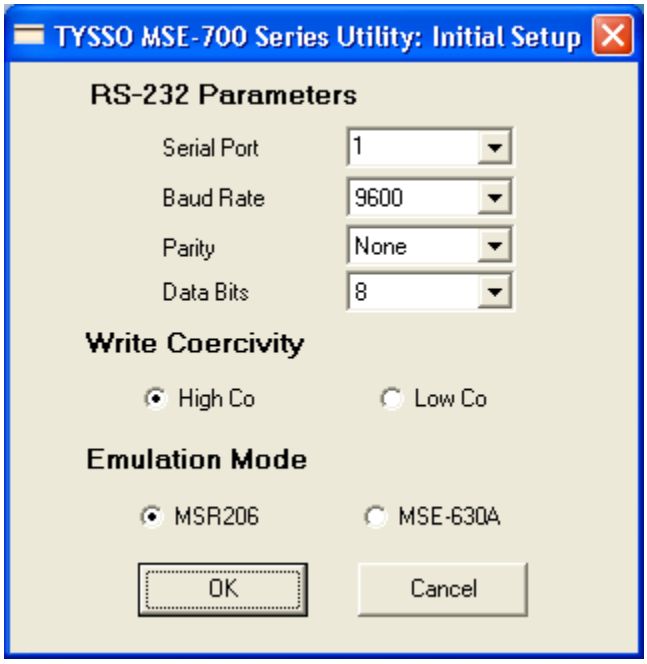

Figure 1: TYSSO MSE-700 Utility: Initial Setup

In case of any communications error, follow the prompts listed in the error window to troubleshoot the problem:

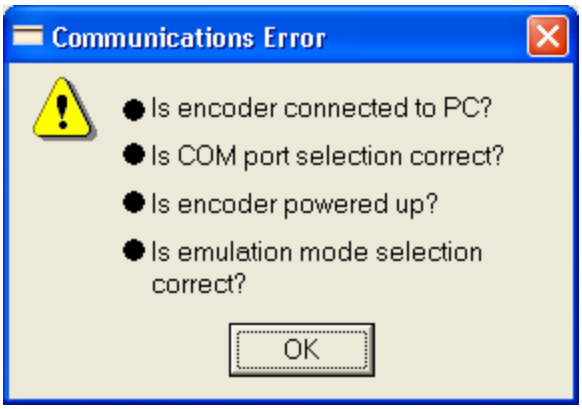

Figure 2: TYSSO MSE-700 Utility: Communications Error

Main Menu

Upon successful initialization of the communications link between the utility and the encoder, you are now ready to interact with the encoder through the Main Menu:

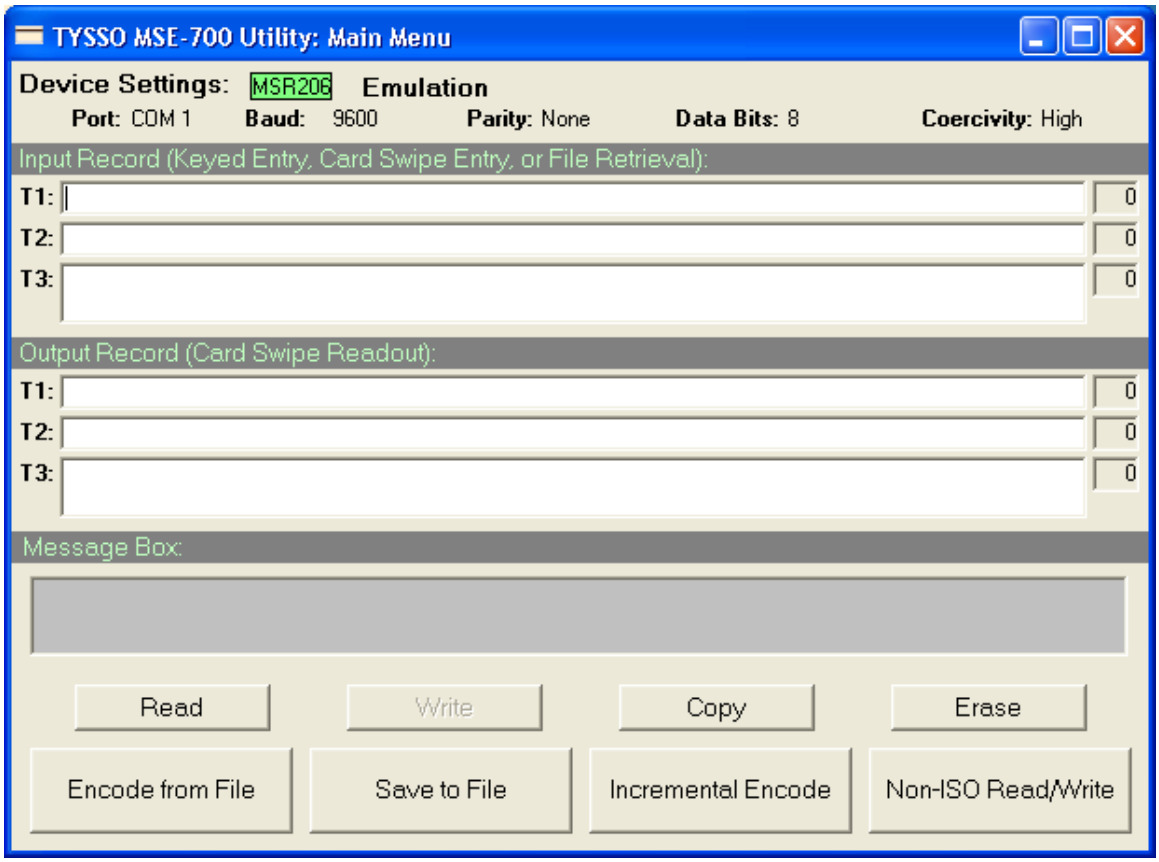

Figure 3: TYSSO MSE-700 Utility: Main Menu – Startup

Read Operation

When you click on the Read button, the utility will prompt you to swipe a card to read. None of the other actions is selectable while the swipe prompt is up on the screen.

Figure 4: TYSSO MSE-700 Utility: Read Swipe Prompt

Upon completion of a successful read, the utility presents the readout of the card in the output record window and puts a positive confirmation in the message box as illustrated below:

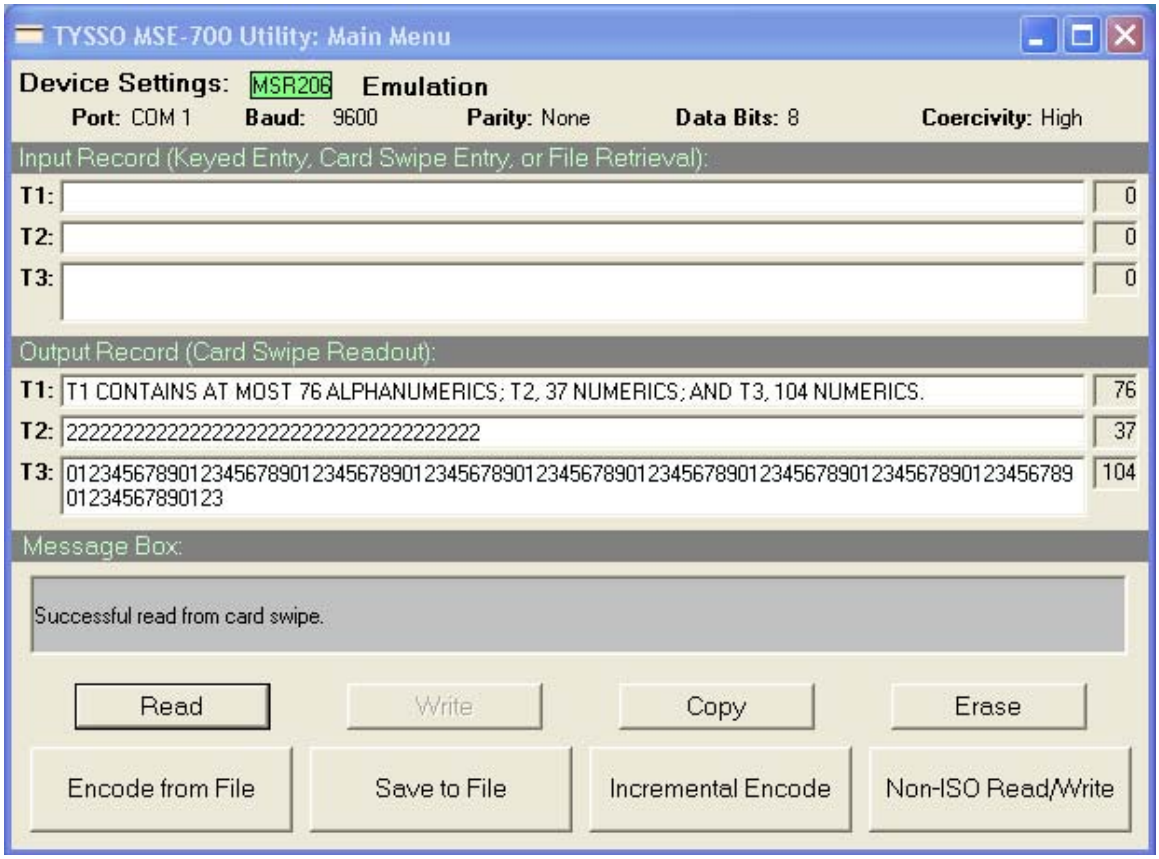

Figure 5: TYSSO MSE-700 Utility: Main Menu – Successful Read from Card Swipe

The utility will prompt you repeatedly for another card to read until you quit the operation. Conversely, in case of an unsuccessful read of any kind, the utility will report the error and prompt you to try again:

Figure 6: TYSSO MSE-700 Utility: Read Swipe Error

Write Operation

Write operation gets activated by keyed data entry. You enter track data into the input record window and then click on the Write button.

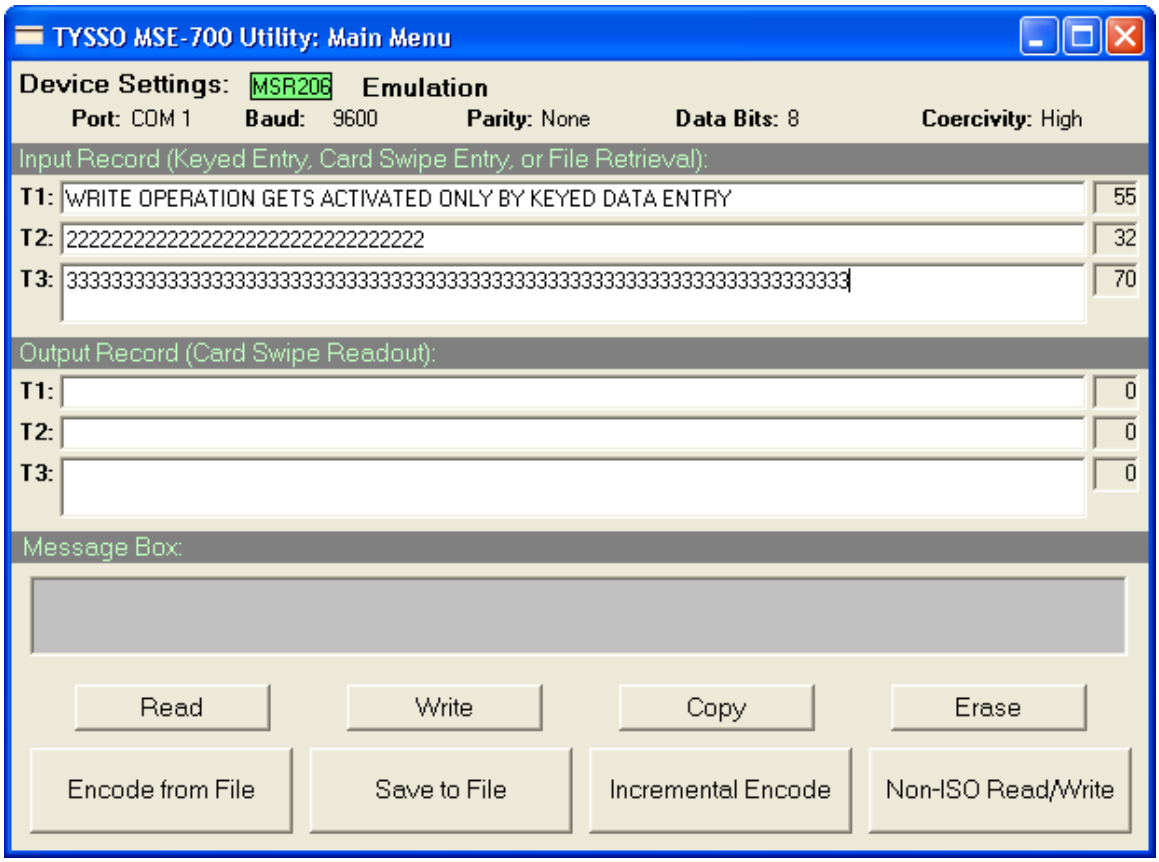

Figure 7: TYSSO MSE-700 Utility: Main Menu – Keyed Entry

The utility then prompts you to swipe a card to write.

Figure 8: TYSSO MSE-700 Utility: Write Swipe Prompt

The encoder reads the card immediately after it is written (i.e., the read-after-write feature of the encoder). The utility exhibits the readout in the output record window and suggests you to verify the accuracy of data on the newly written card:

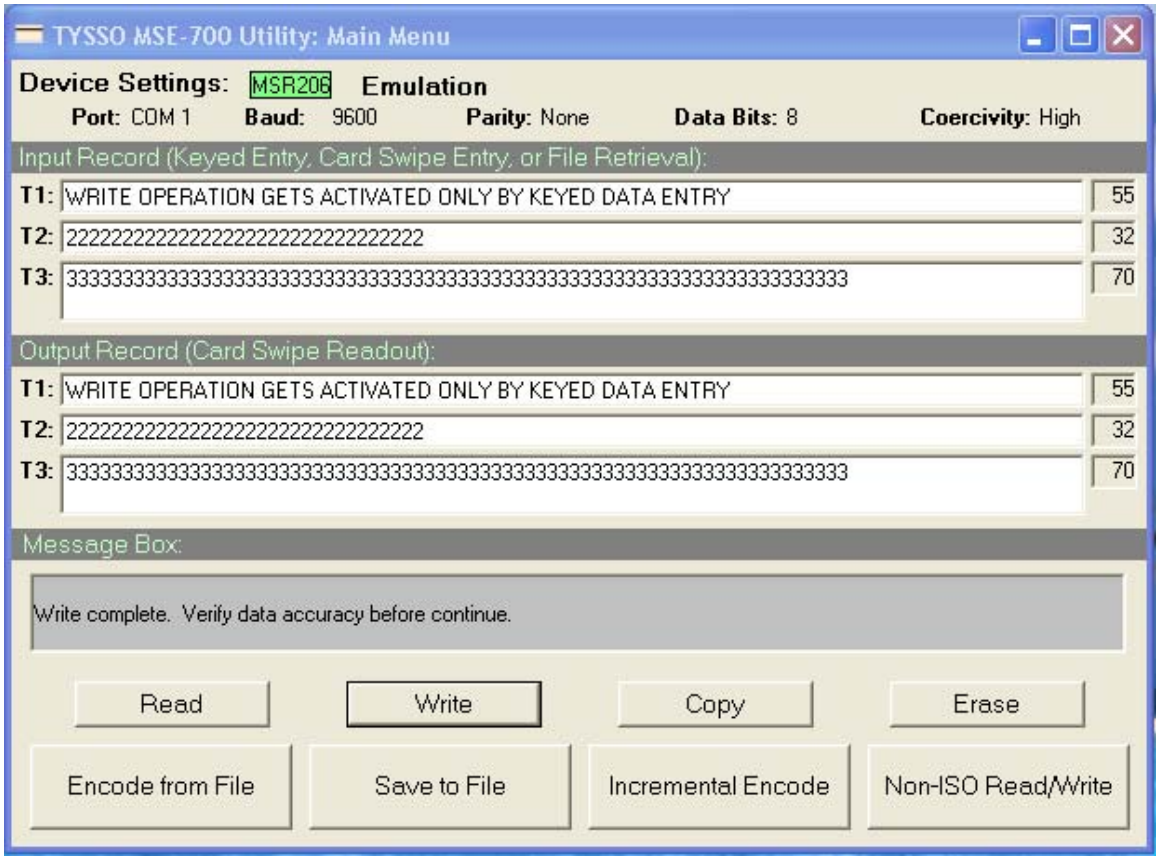

Figure 9: TYSSO MSE-700 Utility: Main Menu – Write Complete

You may continue to duplicate more cards with the same input record until you cancel the operation.

Conversely, in case of an unsuccessful write of any kind, the utility reports the error and prompts you to try again:

Figure 10: TYSSO MSE-700 Utility: Write Swipe Error

Copy Operation

When you click on the Copy button, the utility will first prompt you to read a source card:

Figure 11: TYSSO MSE-700 Utility: Copy Swipe Prompt – Read Source

Upon completion of a successful read, the utility enters the source data into the input record window as illustrated below:

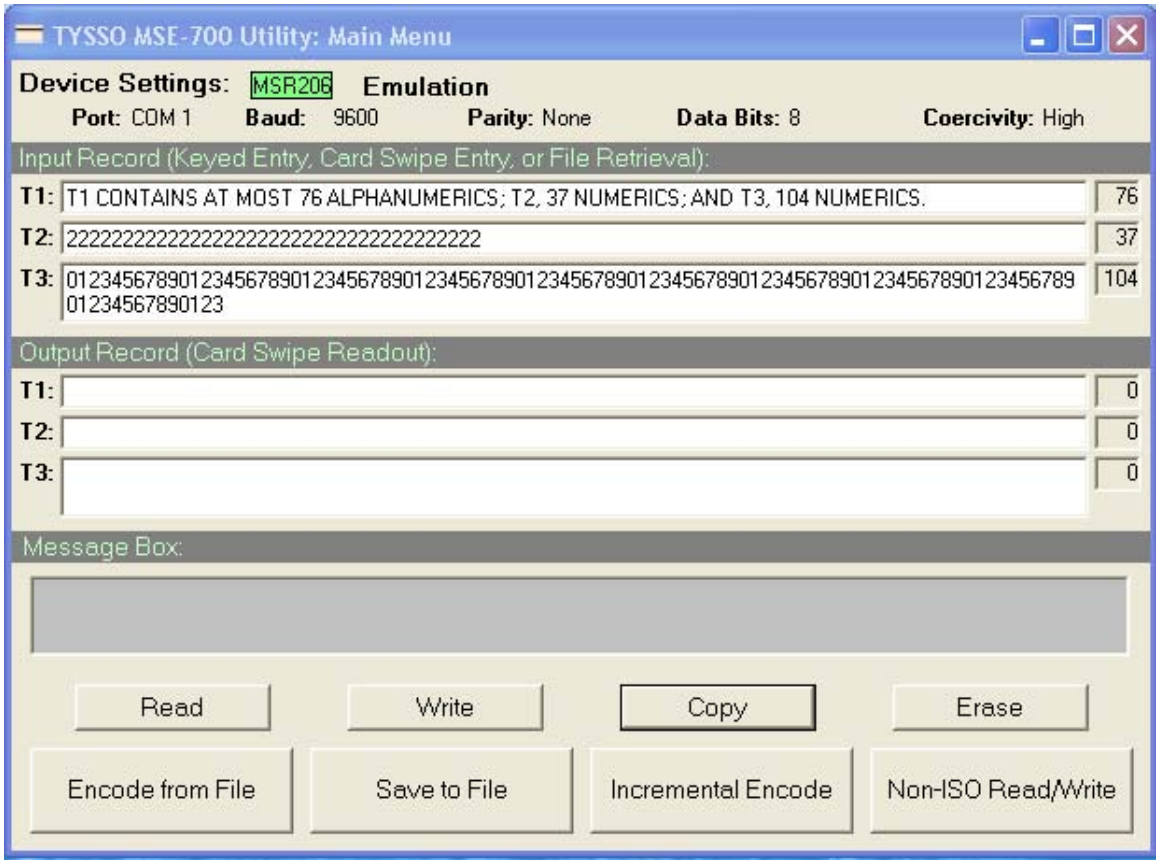

Figure 12: TYSSO MSE-700 Utility: Main Menu – Copy (Read Source)

The utility then prompts you to write to a target card:

Figure 13: TYSSO MSE-700 Utility: Copy Swipe Prompt – Write Target

Upon completion of a read-after-write, the utility displays the readout in the output record window and suggests you verify the accuracy of data on the newly copied card:

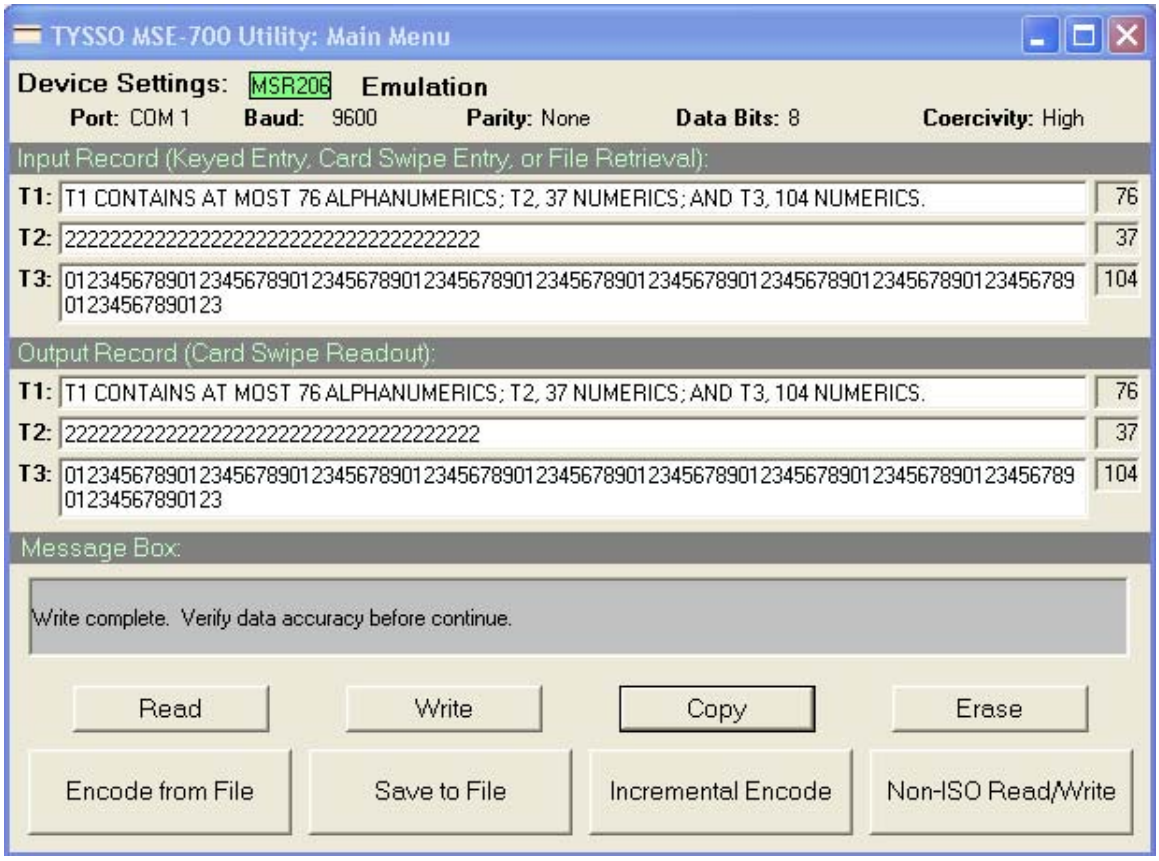

Figure 14: TYSSO MSE-700 Utility: Main Menu – Copy (Write Target)

The utility will loop continuously on the Copy Read – Copy Write cycle until you exit the operation.

In case of an unsuccessful read (from source) or write (to target), the utility will report the error and prompt you to retry as depicted below:

Figure 15: TYSSO MSE-700 Utility: Copy Read Swipe Error

Figure 16: TYSSO MSE-700 Utility: Copy Write Swipe Error

Erase Operation

Erase operation enables you to remove unwanted tracks from an old card. Note that Write operation only overwrites the tracks as enumerated by the source data. Therefore, you are able to modify track 1 and leave tracks 2 and 3 unchanged for an existing triple-track card. You will need to manually erase the tracks that are no longer required. For instance, in case you want to convert a triple-track card to a tracks 1&2 card, you can first erase track 3 and then rewrite tracks 1&2, or vice versa.

When you click on the Erase button, the utility will prompt you to select the track(s) to erase:

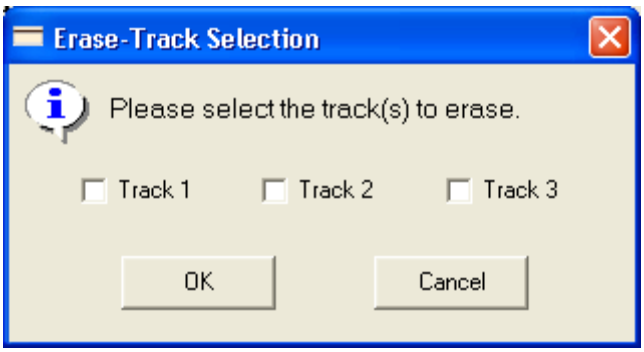

Figure 17: TYSSO MSE-700 Utility: Erase – Track Selection

The utility then prompts you to swipe a card to erase.

Figure 18: TYSSO MSE-700 Utility: Erase Swipe Prompt

You may continue to erase more cards with the same track selection until you cancel the operation.

In case of an unsuccessful erase of any kind, the utility reports the error and prompts you to try again:

Figure 19: TYSSO MSE-700 Utility: Erase Swipe Error

Encode from File Operation

Encode from File enables you to encode multiple cards from a previously created text file. When you click on the Encode from File button, the utility puts up the "Open – Look in:" window for you to locate a source a file to encode.

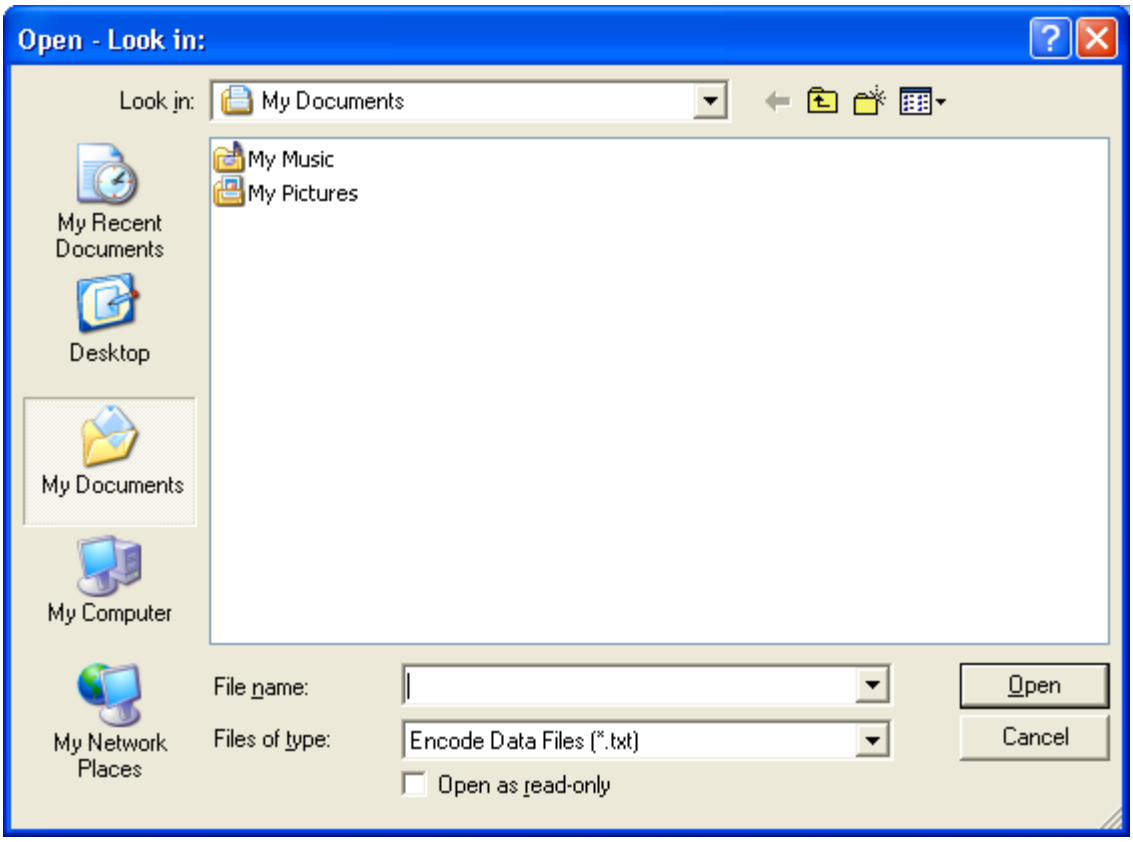

Figure 20: TYSSO MSE-700 Utility: File Encode – Open – Look in

The utility checks the format of the source file and reports any non-ASCII format as an error:

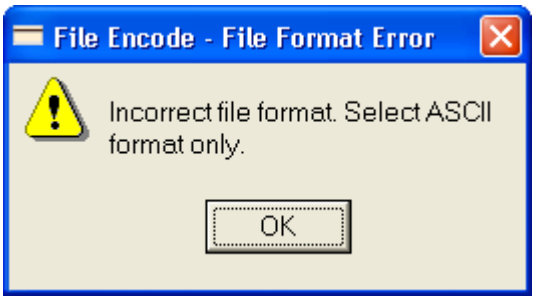

Figure 21: TYSSO MSE-700 Utility: File Encode – File Format Error

Please note the following when manually creating a text file for use with File Encode:

- Each record should follow the "Track 1 Data|Track 2 Data|Track 3 Data" format, such as "THIS IS TRACK ONE DATA|2222222222|01234567890123456789".
- Use "|" as track separator and include two separators for each record with or without empty track(s). For instance, a track 3 only record will look like "||33333333". Do

not separate the tracks of the same record into multiple lines by inserting the “Enter” key.

Upon successful open of a source file, the utility enters the first valid record into the input record window

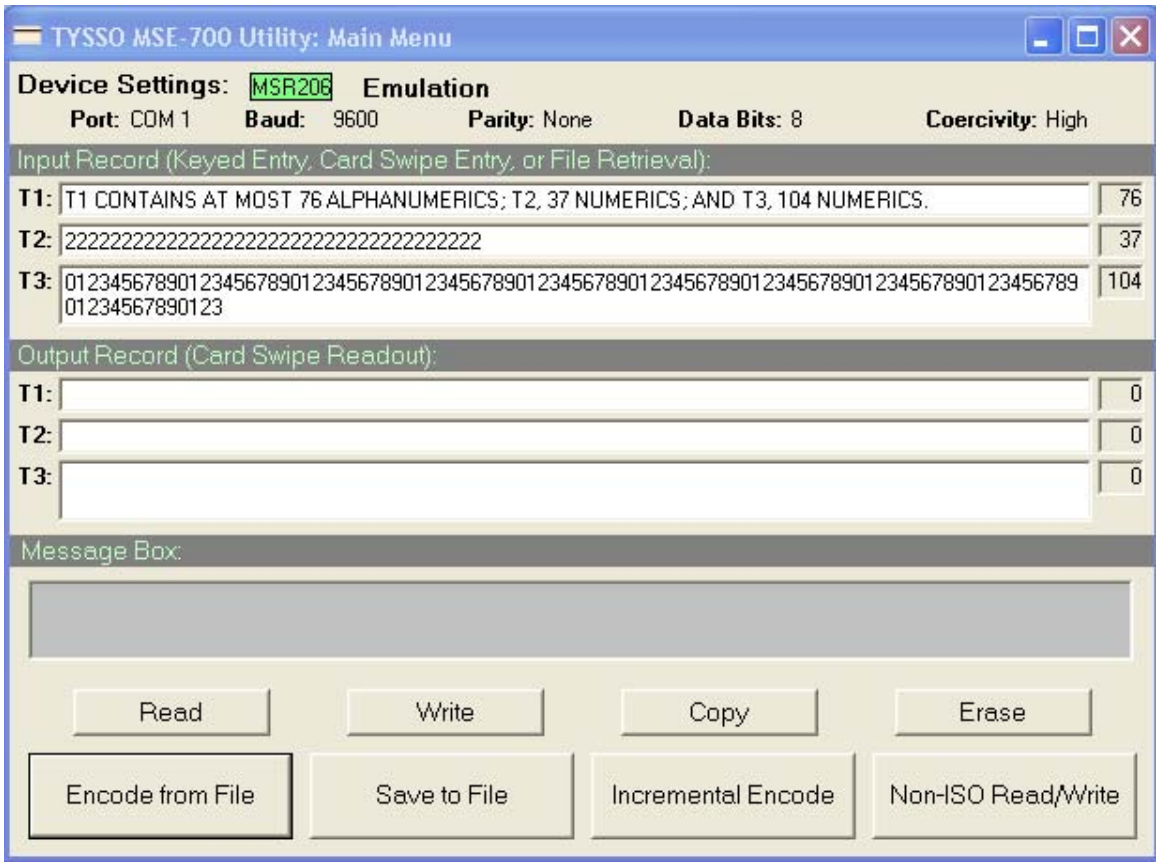

Figure 22: TYSSO MSE-700 Utility: Main Menu – Encode from File (Read Record)

then prompts you to write to a target card:

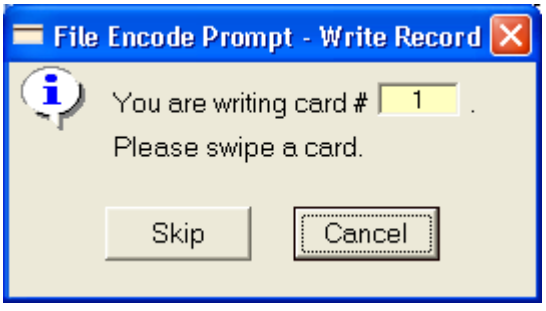

Figure 23: TYSSO MSE-700 Utility: File Encode Prompt – Write Record

If you click on the Skip button, the utility will bring in the next valid record and refresh the main menu accordingly.

Upon completion of a read-after-write, the utility presents the readout in the output record window and suggests you verify the accuracy of data on the newly encoded card:

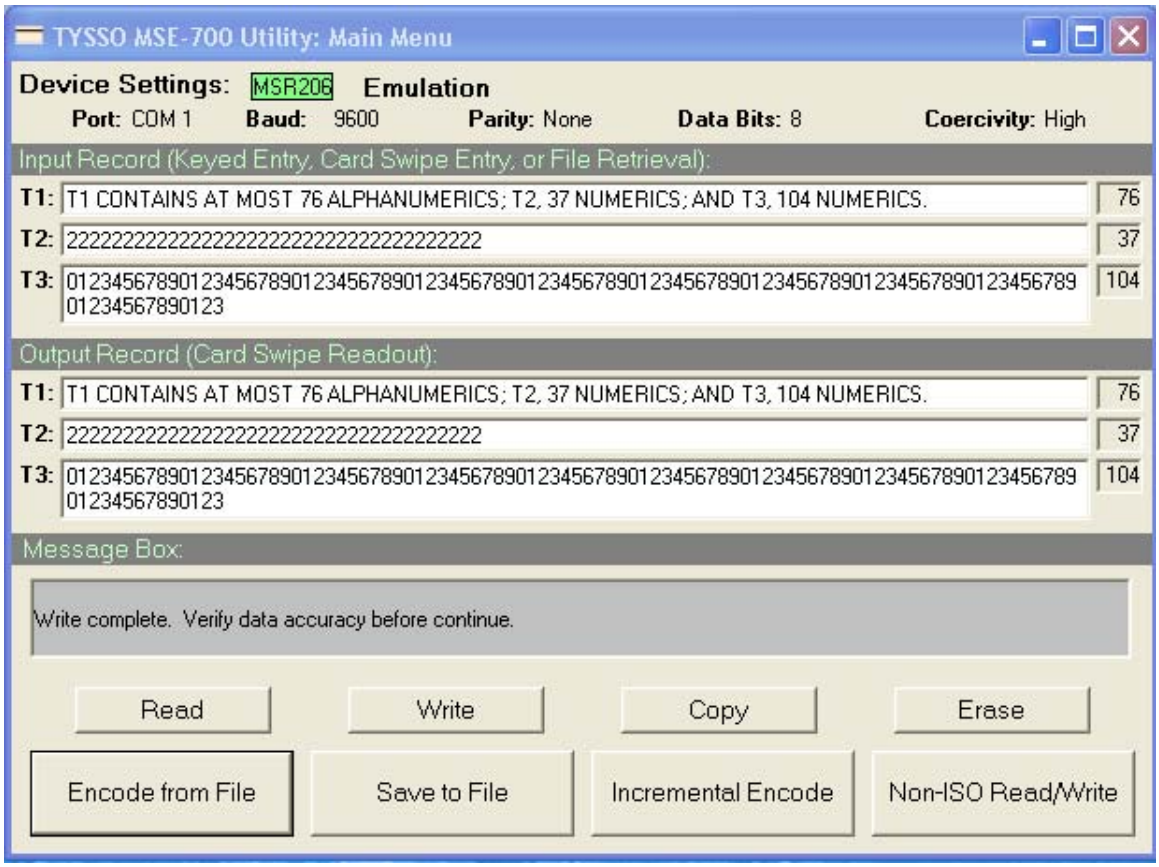

Figure 24: TYSSO MSE-700 Utility: Main Menu – Encode from File (Write Record)

The utility will continue to cycle through the entire file till the end of file.

Figure 25: TYSSO MSE-700 Utility: File Encode Complete

Note that the utility will not attempt to parse out any invalid records, such as track length overflow, non-compliant character set, and etc. It simply skips over the invalid record and moves on to the next valid one.

In case of an unsuccessful write, the utility will report the error and prompt you to retry as depicted below:

Figure 26: TYSSO MSE-700 Utility: File Encode Write Error

Save to File Operation

Save to File allows you to save card records to a file for later reproduction. When you click on the Save to File button, the utility will put up the "Save As – Save in:" window for you to specify the target file:

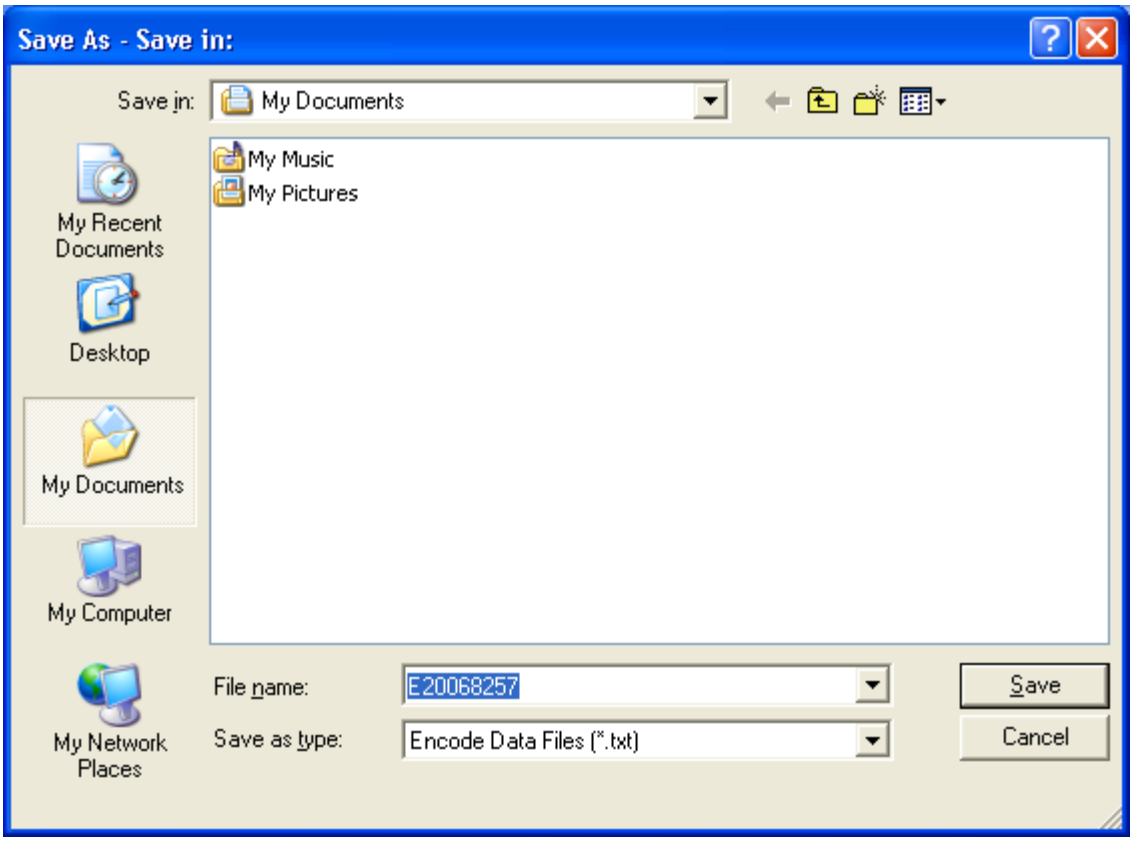

Figure 27: TYSSO MSE-700 Utility: File Save – Save As – Save in

Please note Save to File stores each record in the "Track 1 Data|Track 2 Data|Track 3 Data" format, for example, "TRACK 1 CONTAINS LETTERS AND NUMBERS|2222222222222|01234567890123456789012345678901234567890123456789". "|" is used as track separator. Each record with or without empty track(s) includes exactly two separators, such as "|222222222222222|3333333333333333333333333333333".

The utility then prompts you to swipe a card to save:

Figure 28: TYSSO MSE-700 Utility: File Save – Read Swipe Prompt

Upon completion of a successful save, the utility exhibits the saved data in the output record window and puts a positive confirmation in the message box as illustrated below:

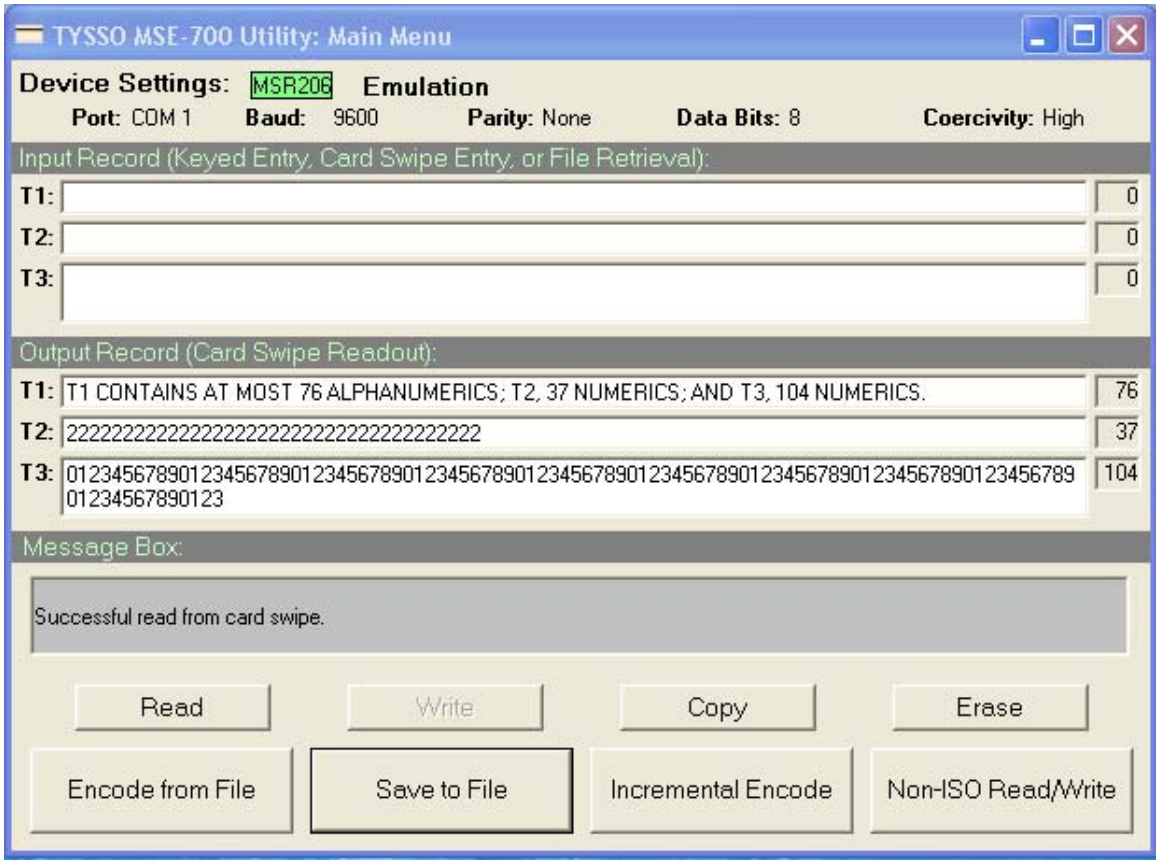

Figure 29: TYSSO MSE-700 Utility: Main Menu – Successful Read from Card Swipe

The utility will continue to prompt you for the next save until you quit the operation. In case of an unsuccessful read, the utility will report the error and prompt you to retry as depicted below:

Figure 30: TYSSO MSE-700 Utility: File Save - Read Swipe Error

When you are done with the last save, the utility will confirm the number of records being saved in the message box as illustrated below:

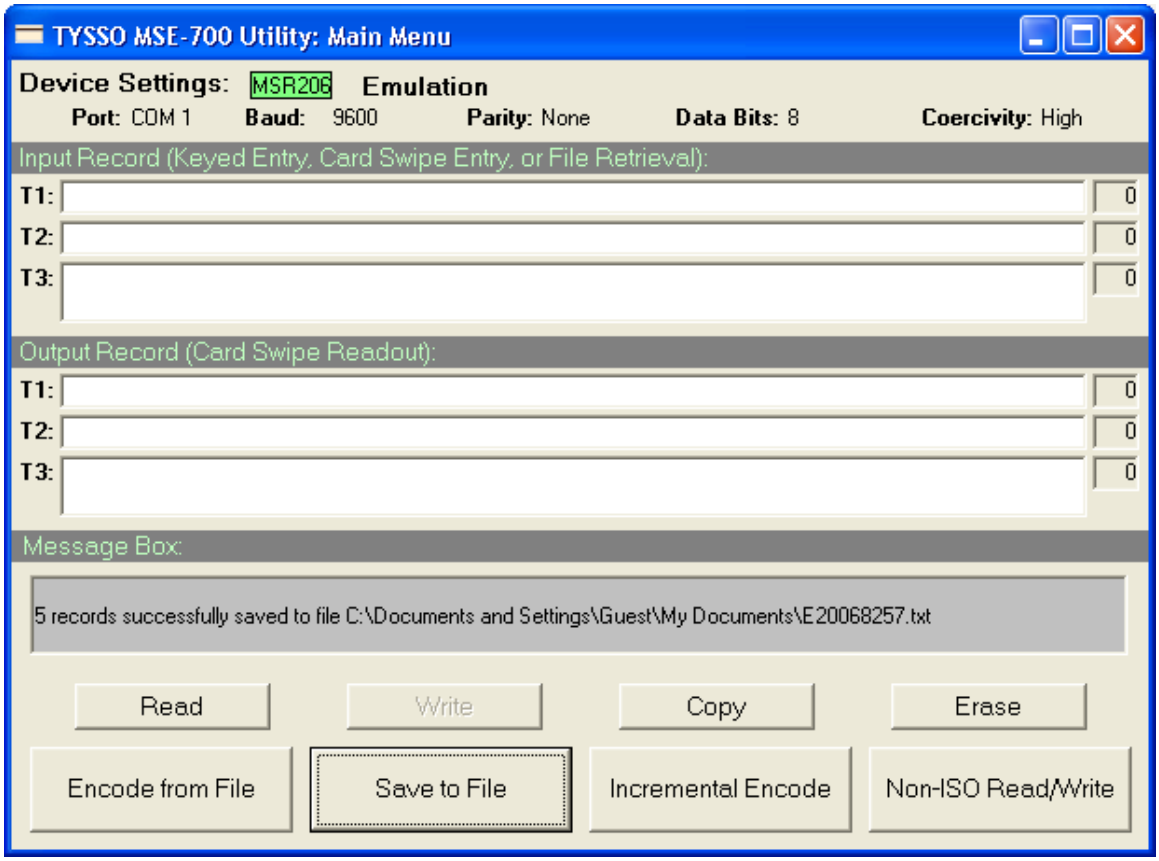

Figure 31: TYSSO MSE-700 Utility: Main Menu – File Save Complete

Incremental Encode Operation

Incremental Encode allows you to select a *single* track to increment:

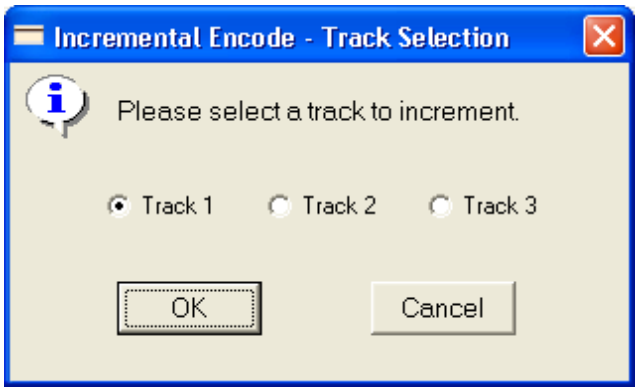

Figure 32: TYSSO MSE-700 Utility: Incremental Encode – Track Selection

The utility will then prompt you to enter the base record to encode:

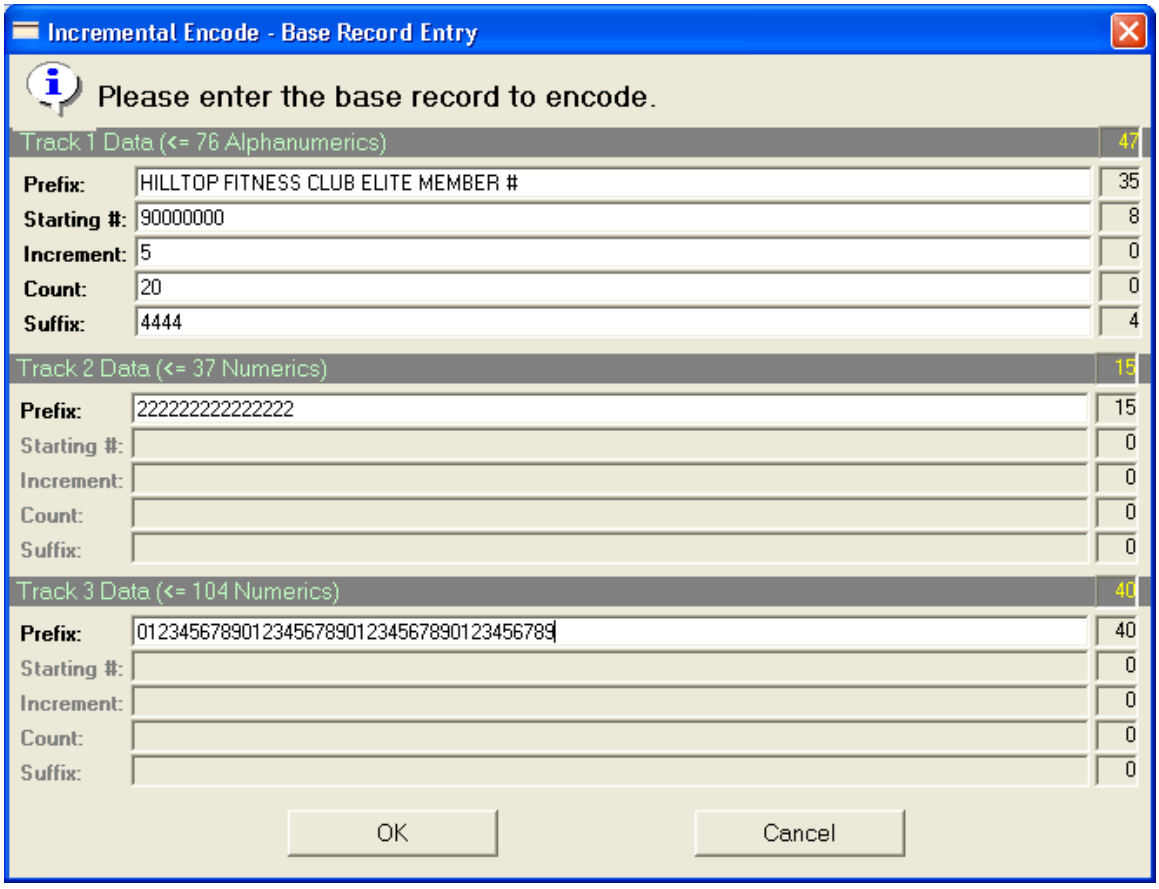

Figure 33: TYSSO MSE-700 Utility: Incremental Encode – Base Record Entry

Note that the Starting #, Increment, Count, and Suffix fields are grayed out for the tracks that are not designated to increment.

After you click on the OK button, the utility enters the first record into the input record window then prompts you to swipe a card to encode:

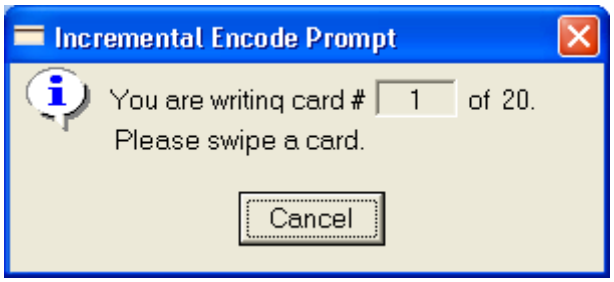

Figure 34: TYSSO MSE-700 Utility: Incremental Encode Prompt

Upon completion of a read-after-write, the utility exhibits the readout in the output record window and suggests you verify the accuracy of data on the newly encoded card:

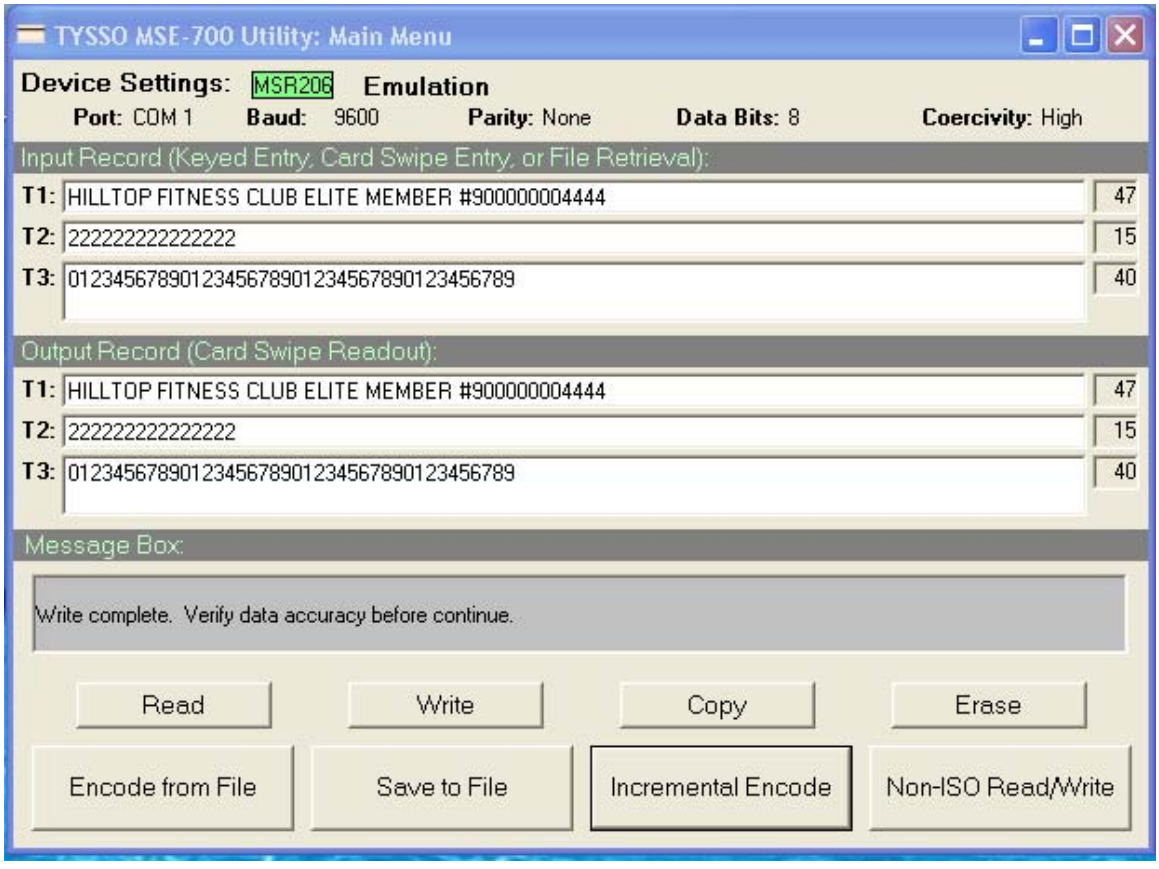

Figure 35: TYSSO MSE-700 Utility: Main Menu – Incremental Encode (Write Target)

The utility will keep prompting you to swipe another card until you are done with the last one.

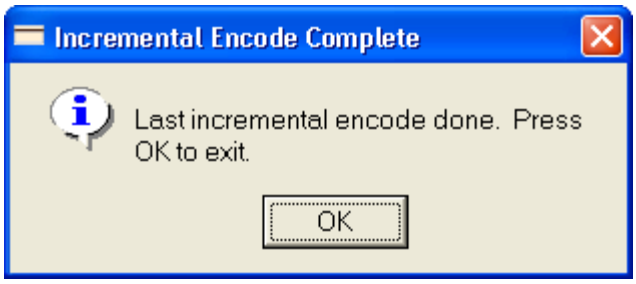

Figure 36: TYSSO MSE-700 Utility: Incremental Encode Complete

In case of an unsuccessful write, the utility will report the error and prompt you to retry as depicted below:

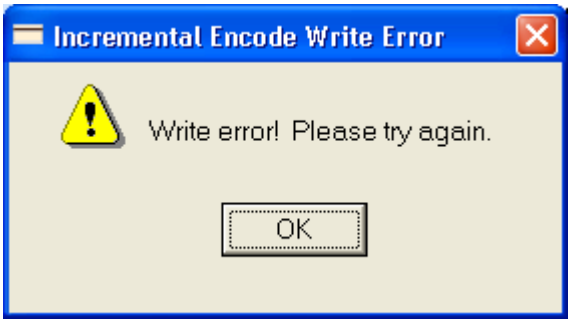

Figure 37: TYSSO MSE-700 Utility: Incremental Encode Write Error

Non-ISO Read/Write Operation

When you click on the Non-ISO Read/Write button, the utility will prompt you to select a data format. ***Note that Custom Data Format is only available from MSE-630A emulation mode***.

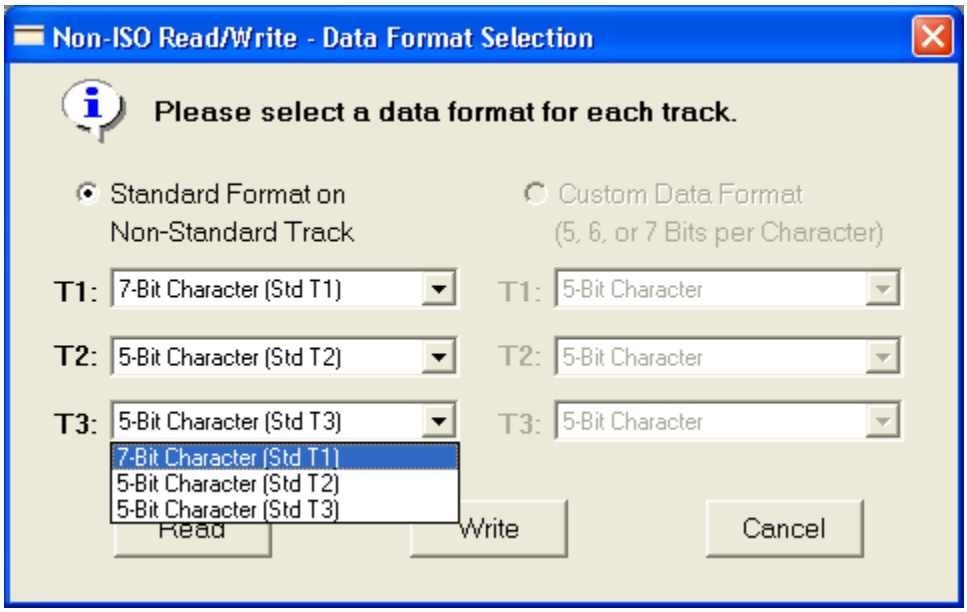

Figure 38: TYSSO MSE-700 Utility: Non-ISO Read/Write – Data Format Selection

Non-ISO Read

When you click on the "Read" button, the utility will prompt you to swipe a card:

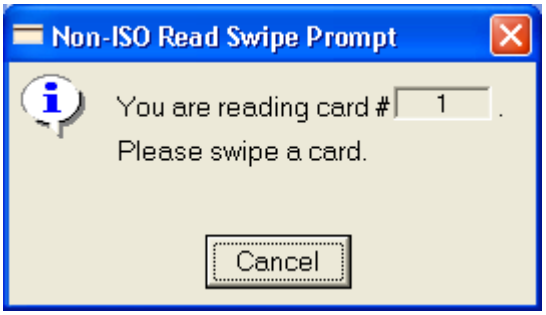

Figure 39: TYSSO MSE-700 Utility: Non-ISO Read Swipe Prompt

Upon completion of a successful read, the utility presents the readout of the card in ASCII representation for standard data format or hex representation for custom data format:

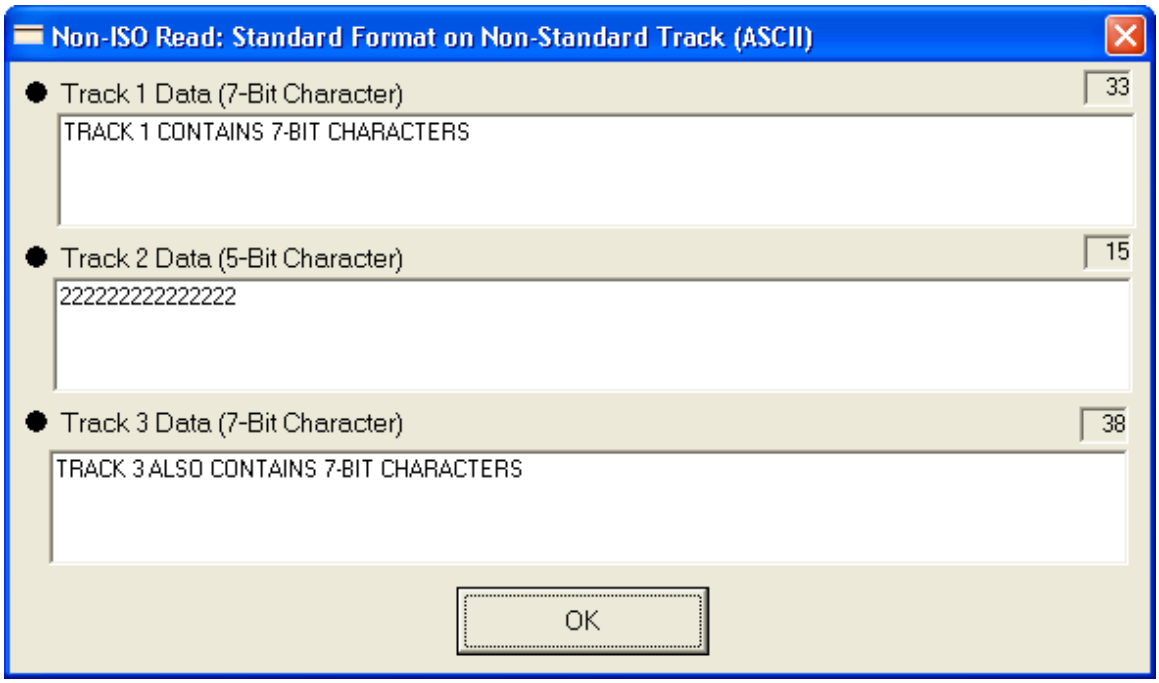

Figure 40: TYSSO MSE-700 Utility: Non-ISO Read (ASCII Representation)

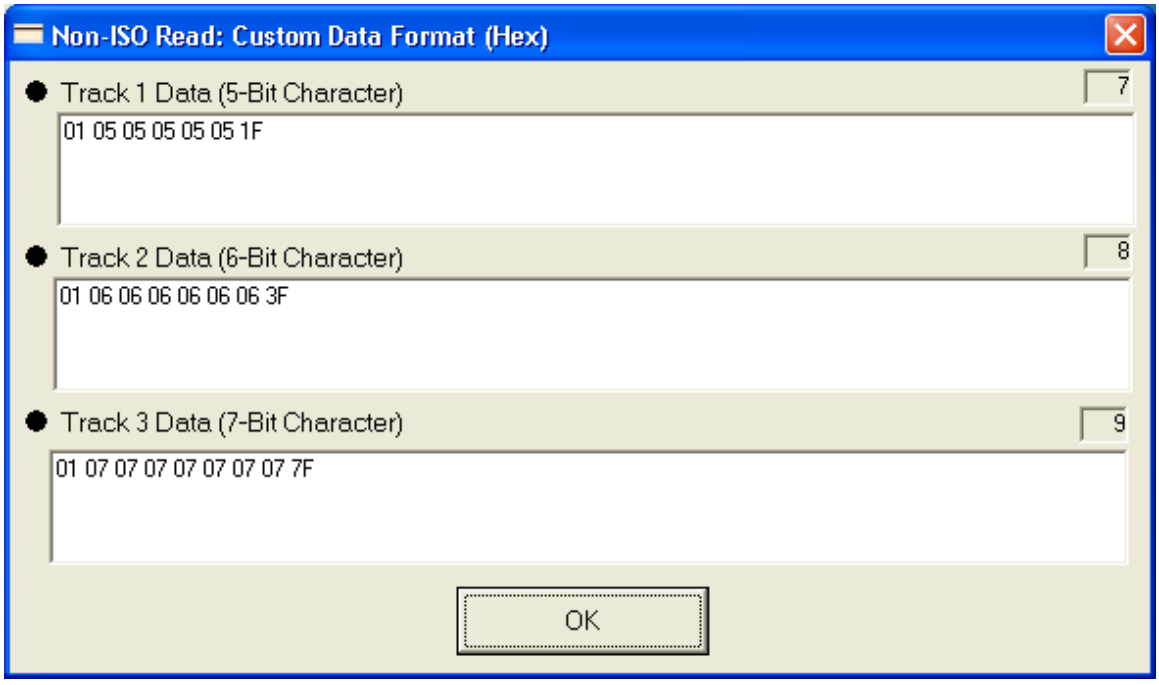

Figure 41: TYSSO MSE-700 Utility: Non-ISO Read (Hex Representation)

If there is a mismatch between the format you specified and the format being written to the card, the utility will only display the data of the compatible track(s) and flag "Read Error" for the incompatible track(s).

The OK button will bring up the swipe prompt for the next card.

Non-ISO Write

When you click on the "Write" button, the utility will prompt you to select the data density for each track:

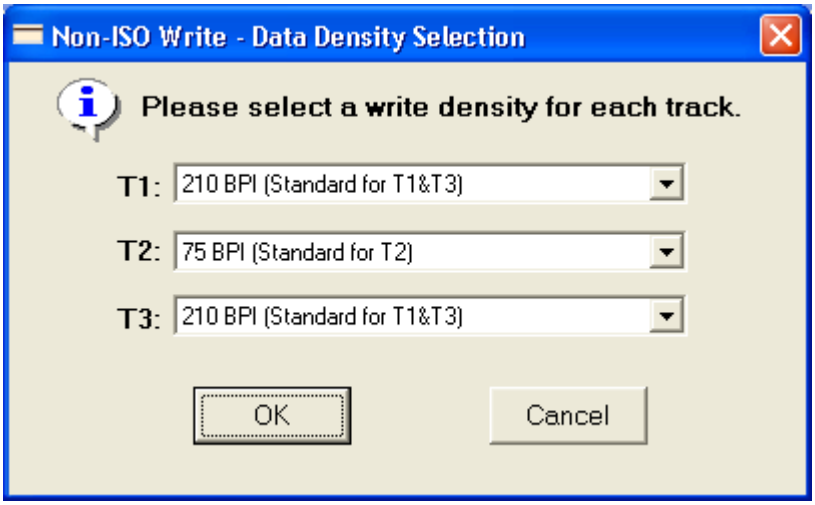

Figure 42: TYSSO MSE-700 Utility: Non-ISO Write – Select Data Density

After you click on the OK button, the utility will bring up an input window as below. You will key in ASCII characters if you are to write standard data format on non-standard track. Otherwise, you will enter hex code for custom data format.

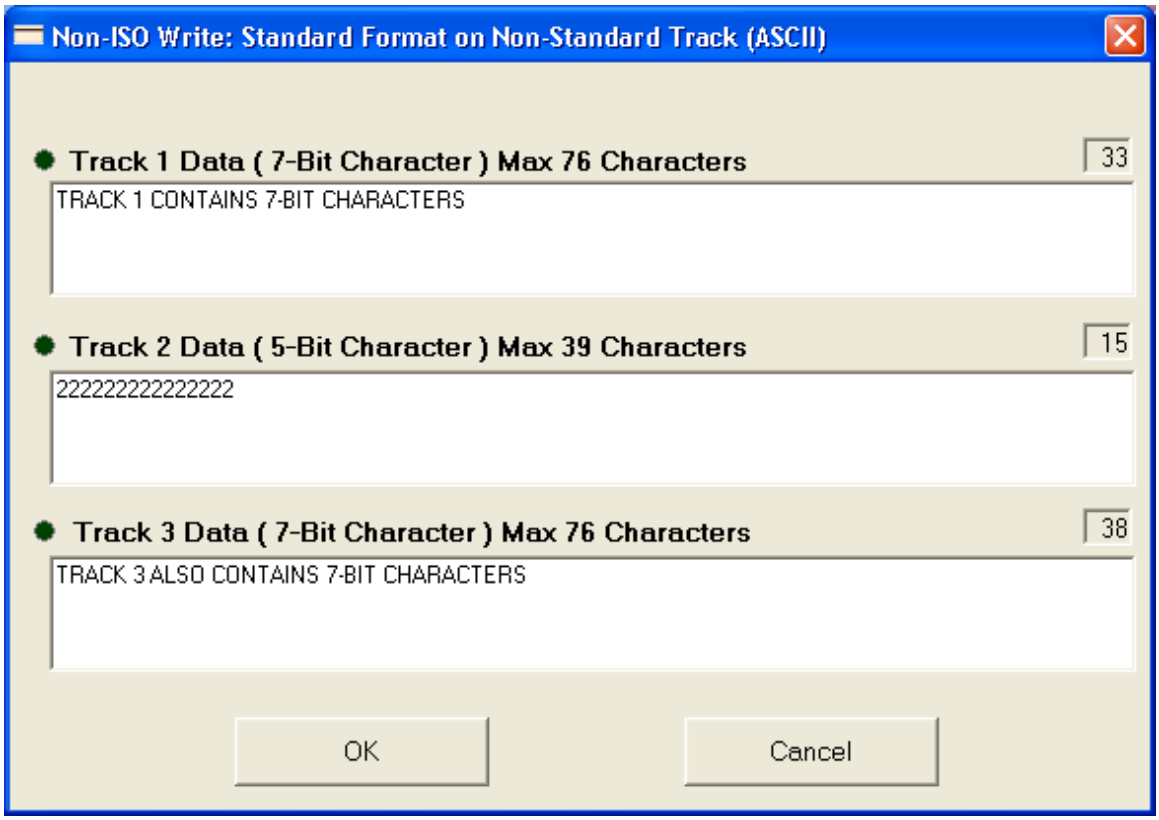

Figure 43: TYSSO MSE-700 Utility: Non-ISO Write (ASCII Representation)

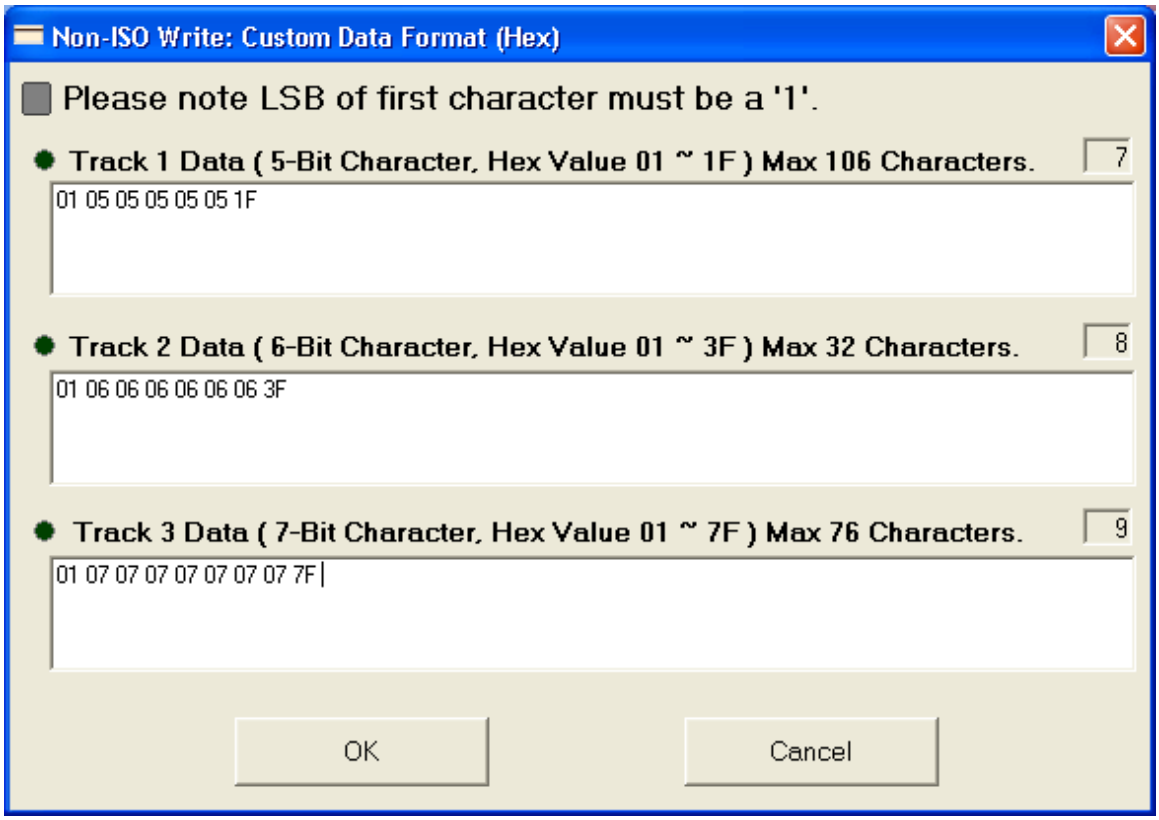

Figure 44: TYSSO MSE-700 Utility: Non-ISO Write (Hex Representation)

The OK button will bring up the swipe prompt to allow you to duplicate as many cards as you want until you quit.

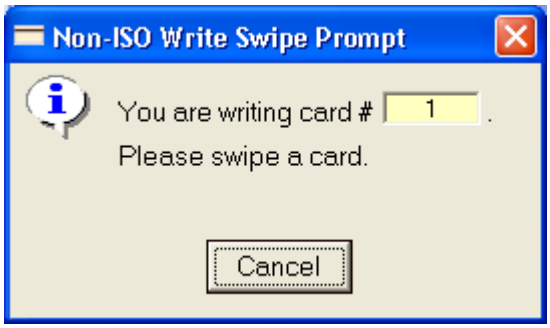

Figure 45: TYSSO MSE-700 Utility: Non-ISO Write Swipe Prompt

The utility will pop up the retry prompt as a result of a bad swipe.

Figure 46: TYSSO MSE-700 Utility: Non-ISO Write Swipe Error