

**TREK**

**Ground Support Equipment (GSE) Convert**

**USER GUIDE**



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Approved for Public Release; Distribution is Unlimited.

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## 1 Welcome

The Telescience Resource Kit (TReK) is a suite of software applications and libraries that can be used to monitor and control assets in space or on the ground.

The Payload Operations Integration Center (POIC) provides the capability to download a Ground Support Equipment (GSE) packet definition. GSE packet definitions that are downloaded from the POIC are stored in ASCII files. Each GSE packet is assigned an APID and can have up to 8 formats associated with it. There is a separate ASCII file that contains the definition for each format of the GSE packet.

Note: Whenever transferring files from the POIC to your TReK system, please use the “Text” file transfer option instead of the “Binary” file transfer option. If you use the “Binary” option, TReK may encounter an error while trying to convert the files.

The GSE Convert application provides the capability to convert a GSE Packet definition downloaded from the POIC in an ASCII file format to a GSE Packet definition in a TReK metadata file format (a format that can be read by the TReK Packet class in the TReK Data API).

### 1.1 Getting Started

Start with the Introduction which provides an application overview. Next, try the Quick Start Guides for “How Tos” for common functions. For help with details, reference the Details section. See the FAQ and Troubleshooting section for helpful hints and solutions to the common “gotchas”.

### 1.2 System Requirements

Windows 7, Red Hat Enterprise Linux 6.x.

## 2 Technical Support

If you are having trouble installing the TReK software or using any of the TReK software applications, please try the following suggestions:

Read the corresponding material in the manual and/or on-line help.

Ensure that you are correctly following all instructions.

Checkout the TReK Web site at <http://trek.msfc.nasa.gov/> for Frequently Asked Questions.

If you are still unable to resolve your difficulty, please contact us for technical assistance:

TReK Help Desk E-Mail, Phone & Fax:

E-Mail:            trek.help@nasa.gov  
Telephone:        256-544-3521 (7:00 a.m. - 3:30 p.m. Central Time)  
Fax:                256-544-9353

TReK Help Desk hours are 7:00 a.m. – 3:30 p.m. Central Time Monday through Friday. If you call the TReK Help Desk and you get a recording please leave a message and someone will return your call. E-mail is the preferred contact method for help. The e-mail message is automatically forwarded to the TReK developers and helps cut the response time.

### **3 Introduction**

The Payload Operations Integration Center (POIC) provides the capability to download a Ground Support Equipment (GSE) packet definition. GSE packet definitions that are downloaded from the POIC are stored in ASCII files. Each GSE packet is assigned an APID and can have up to 8 formats associated with it. There is a separate ASCII file that contains the definition for each format of the GSE packet.

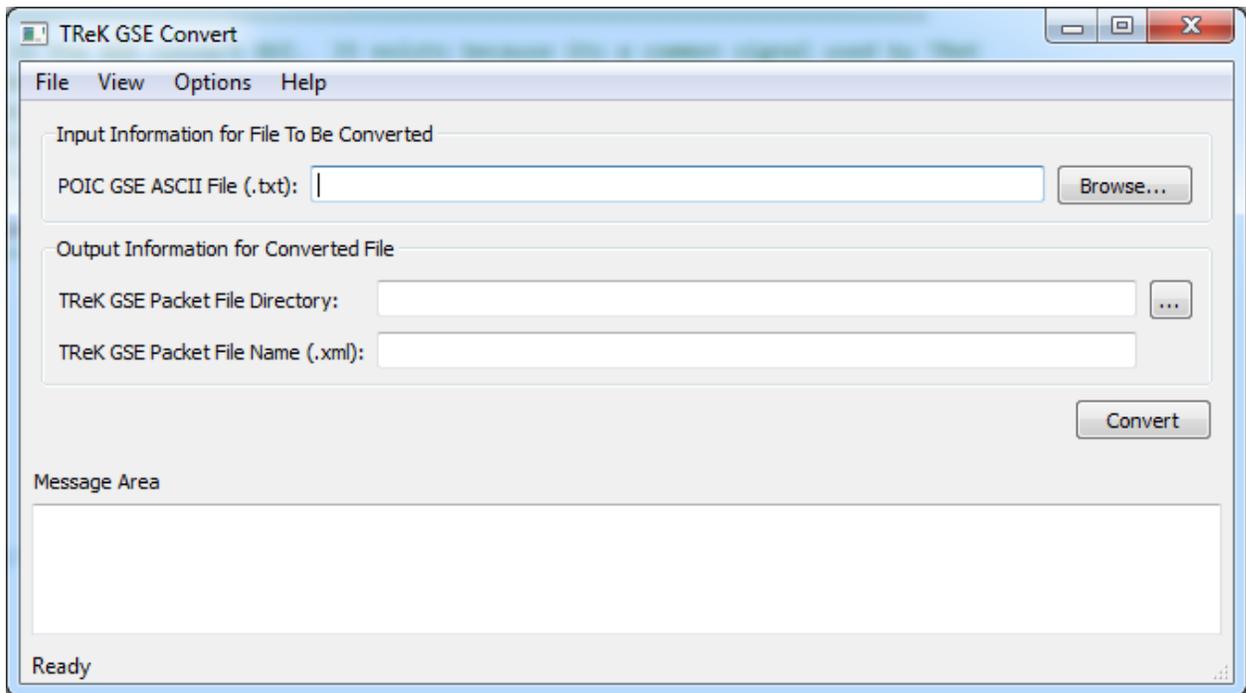
Note: Whenever transferring files from the POIC to your TReK system, please use the “Text” file transfer option instead of the “Binary” file transfer option. If you use the “Binary” option, TReK may encounter an error while trying to convert the files.

The GSE Convert application provides the capability to convert a GSE Packet definition downloaded from the POIC in an ASCII file format to a GSE Packet definition in a TReK metadata file format (a format that can be read by the TReK Packet class in the TReK Data API).

## **4 Overview of the User Interface**

### **4.1 Main Window**

The main window is shown in Figure 1. The top area of the main window provides the capability to enter the complete path to the GSE ASCII File to be converted. The middle area of the main window provides the capability to specify the directory and filename for the TReK GSE Packet file that will be generated. The bottom area of the main window is used to display important status and error messages.



**Figure 1 Main Window**

### Message Area

The Message Area displays important status and error messages. The message area can be cleared using the View menu.

## **4.2 Menus**

The application menus are: File, View, Options, and Help. Each of these menus is described in more detail below.

### File Menu

The File menu provides the capability to exit the application.

### View Menu

The View menu provides the capability to clear the main window message area.

### Options Menu

The Options menu provides access to the Messages dialog. The Messages dialog displays application messages.

### Help Menu

The Help menu provides access to on-line help and application version information.

## 5 Quick Start Guides

This section provides “How Tos” for common functions.

### 5.1 How to Convert a GSE Packet file in an ASCII format to a TReK metadata file format.

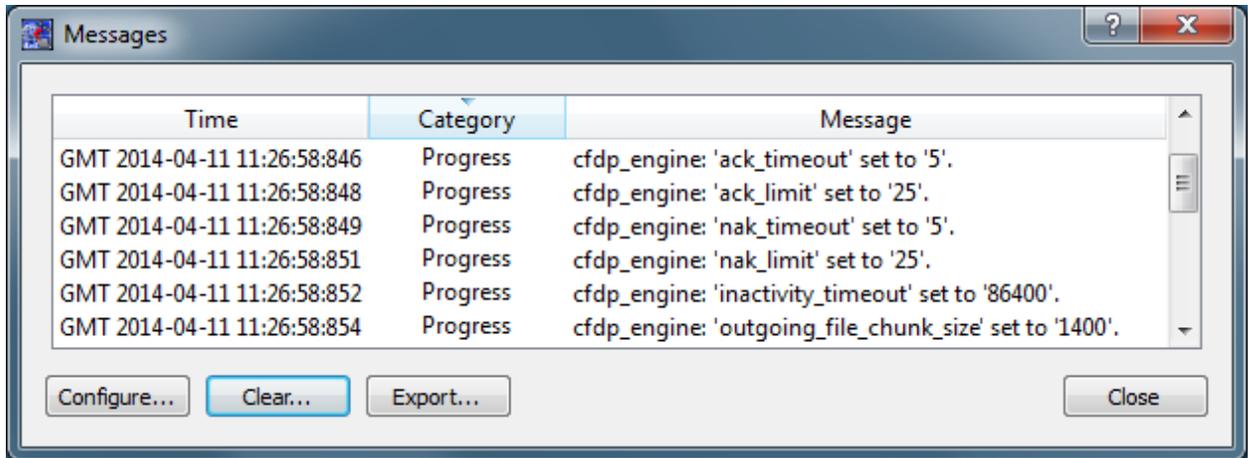
1. In the POIC GSE ASCII File field, enter the complete path for the GSE Packet file downloaded from the POIC. (Note: If the packet has multiple formats you will need to convert each file one at a time).
2. In the TReK GSE Packet File Directory field, enter the Directory where the new TReK metadata file should be stored once the conversion is complete.
3. In the TReK GSE Packet File Name field, enter the filename for the new TReK metadata file that will be generated during the conversion.
4. Push the Convert button.

## 6 Details

This section covers various application details.

### 6.1 Application Messages

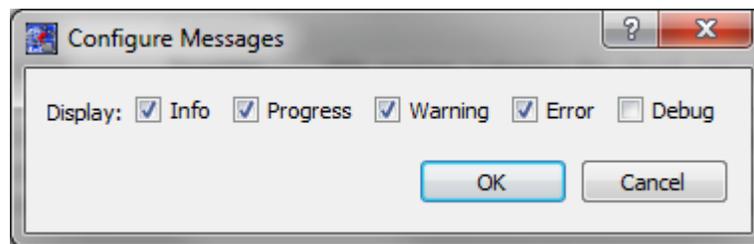
Various types of application messages are generated including information, progress, warning, error, and debug messages. Information, warning, and error messages will be displayed in the main window message area. All application messages are sent to the Messages dialog shown in Figure 2. The Messages dialog can be configured to display specific types of messages. By default, the Messages dialog will display information, progress, warning, and error messages. Columns in the Messages dialog can be sorted by clicking on the column header. The Messages dialog is available from the Options menu.



**Figure 2 Messages Dialog**

### Configure

The Configure button provides access to the Configure Messages dialog shown in Figure 3. This dialog is used to filter the types of messages (category) displayed in the Messages dialog.



**Figure 3 Configure Messages Dialog**

### Clear

The Clear button provides access to the Clear Messages dialog shown in Figure 4. This dialog provides two ways to clear messages in the Messages dialog. You can clear all the messages or clear selected messages. Once you clear messages, the messages are permanently deleted.



**Figure 4 Clear Messages Dialog**

### Export

The Export button provides the capability to save all the application messages to a file. When you push the Export button you will be prompted for a directory and filename. Export will save all messages, not just the messages currently displayed in the Messages dialog (i.e. the 'Configure' filter is not applied). The name you provide for the file will be modified with a time tag prefixed to the filename. The time tag indicates the time the file was closed. For example:

Filename Input:        messages.txt  
Filename Output:     GMT\_2014-04-10\_16~57~27~182\_messages.txt.

## **6.2 Application Settings**

The CFDP application saves some settings as application settings each time you exit the application. The next time you run the application, the application will initialize with the previous application settings. The following application settings are saved:

- Application Window Size
- Application Window Position

## **7 FAQ and Troubleshooting**

This section addresses Frequently Asked Questions and provides tips for troubleshooting common gotchas.

No FAQs Yet.