Instructions for Installing TReK 5.3.3 on RHEL 8.x

*Note: Choose the correct installation files for a Red Hat Enterprise Linux 8.x system. If you have any questions, contact the TReK Help Desk at trek.help@nasa.gov or 1-256-544-3521. Versions prior to 5.1.1 installed third party software separately. A script is provided on the TReK website that will uninstall all previous versions of TReK and related third party software. If you are interested in installing only a subset of TReK capabilities, see the Section labeled **Minimal Installs**.*

Removing Previous Versions of TReK:

Beginning with TReK 5.1.1 all Linux third party applications and libraries are installed in the TReK directory structure. The following script can be run to uninstall all previous versions of TReK and the associated third party software.

Warning: This will uninstall anything with 'trek-' in the name. If you are unsure if something else may have the name 'trek' in it, just run the command 'rpm –qa | grep trek-' to see what is on your system.

Note: Copying and pasting the information below may introduce extra characters in the file which could prevent the script from running. It is recommended that you download the uninstall script from the TReK website.

```
#!/bin/bash

# script to uninstall all previous versions of trek.

# find and uninstall all version of trek
rpm -qa | grep trek- | xargs rpm -e

# remove each version of 3rd party software by version number
# order of removal is important
rpm -e qt-opensource-5.2.1
rpm -e qt-shared-5.5.0
rpm -e cryptopp-5.6.2
rpm -e xerces-c-3.1.1
rpm -e xerces-c-3.1.4
rpm -e icu-51.2
rpm -e ion-open-source-3.3.1
rpm -e ion-3.3.1b
rpm -e ion-3.6.1
rpm -e sqlite-3.10.2
rpm -e sqlite-3.18.0
rpm -e openssl-1.1.0g
```

Installing TReK:

Once you have installed the required libraries use the following commands to install TReK (assumes that you have copied the TReK RPMs to the current working directory):

```
> su
Password: ************
# rpm –ihv trek-*.rpm
# exit
>
```

Note: There is a file installed that will update environment variables on your system. It will be executed when you log into the system. If you are having problems running TReK after installation, you may be able to resolve the problem by logging off the system and logging back on.

What is Installed:

Most of the TReK files are installed in the /usr/trek-x.y.z directory where x.y.z is replaced with the version number.   The x indicates the major release number. The y indicates the minor release number. The z indicates the bug fix (service pack) number. If the first two values are zero, the release is considered an alpha release and is not distributed to external TReK users. If only the first number is zero, the release is considered a beta release and is available to the general TReK user community. Only releases that begin with a non-zero number are considered operationally ready.

The following files are also installed by TReK. The same x.y.z rules above will appear in these files. This allows multiple versions of TReK to be installed on the same computer:

- /etc/profile.d/trek-toolkit.sh – sets environment variables needed to run TReK (TREKROOT, TREK_INCLUDE, TREK_LIB, and PATH). *Note: If you start TReK from the menu, these environment variables will be reset for the correct version. If you run from the command line, you will need to reset the variables as needed if you have multiple versions of TReK installed.*
- /usr/share/desktop-directories/ -- menu directories for TReK
    - trek-x.y.z.directory
    - trek-x.y.z -doc.directory
    - trek-x.y.z -doc-tutorial.directory
    - trek-x.y.z -doc-user-guide.directory
- /usr/share/applications/ -- menu items for TReK applications, etc. All items in this directory are prefixed with trek-x.y.z.
- /etc/xdg/menus/applications-merged/trek-x.y.z.menu – creates a menu item under Applications.

Minimal Install:

If you are only interested in a subset of the capabilities provided by TReK, you can install only the required packages to get those capabilities. The information below has been requested by other users. If you do not see the capabilities that you wish to install, please contact the TReK Help Desk at trek.help@nasa.gov to get further assistance. This list will grow based on feedback from users.

TReK release packages are named with the following format:

trek-***name***-***version***.***architecture***.rpm (e.g., trek-**help**-5.3.3-1.el8.x86_64.rpm). The lists below contain the '**name'** of the package, you should install (e.g., **help**).

Which packages do I need to run CFDP over UDP only?

- cfdp
- cfdpconsole (not needed if you intended to write your own CFDP software with the provided APIs)
- deviceservices
- dropbox (only needed if you use fragmentation/defragmentation or encryption/decryption dropboxes)
- opencrypt

Which packages do I need to run CFDP over Bundle Protocol (DTN/ION)?

- cfdp
- cfdpconsole (not needed if you intended to write your own CFDP software with the provided APIs)
- deviceservices
- dropbox (only needed if you use fragmentation/defragmentation or encryption/decryption dropboxes)
- ion
- opencrypt

Which packages do I need to run just the EXPRESS interface for my payload on ISS?

- express
- deviceservices
- data

Which packages do I need to run just the PEP Ethernet interface for my payload on ISS?

- pepethernet
- deviceservices
- data

Which packages do I need to record packets in files using UDP or TCP sockets?

- record
- deviceservices