How to use utilities
to convert TLM into CSV or KML

Instruction how to convert **UgCS** telemetry file to readable CSV file or special standard of KML file for Windows (7, 8, 10) users:

1. Download zip utility file:

   https://github.com/ugcs/ugcs-java-sdk/releases/download/2.11/ugcs-telemetry-tool-2.11.zip

   Unpack it to any directory of your choice.

2. Copy telemetry file that needs to be converted to utilities directory next to all *.bat files. In this example "**Flight.tlm**" will be used as telemetries file name.

3. Open command prompt:

   ☐ **To open Command Prompt in Windows 7**

   Click Start button

   In Windows 7 it's a bit faster to enter command in search box at bottom of Start Menu and click on Command Prompt when it is showed in results.

   Click All Programs, followed by Accessories.

   Choose Command Prompt from list of programs.

   Command Prompt should be opened right away.

   ☐ **Open Command Prompt in Windows 8 or 8.1**

   Swipe up to show Apps screen or click on down arrow icon at bottom of screen.

   NOTE: Prior to Windows 8.1 update Apps screen can be accessed from Start screen by swiping up from bottom of the screen, or right-clicking anywhere on desctop, and then choosing All apps.

   TIP: If a keyboard or mouse is in use, a really quick way to open Command Prompt window in Windows 8 is via Power User Menu - just hold WIN and X keys down together, or right-click on Start button, and choose Command Prompt.

   In Apps screen swipe or scroll to the right and locate Windows System section heading.

   Under Windows System, tap or click on Command Prompt.

   A new Command Prompt window will open on Desktop.

□ **Open Command Prompt in Windows 10**

Tap or click Start button then choose All apps.

If Desktop is not used in Windows 10, tap All apps button on bottom-left of screen. The icon looks like small list of items.

TIP: The Power User Menu is a much faster way to get to Command Prompt in Windows 10 but only if keyboard or mouse is used. Just choose Command Prompt from menu that appears after pressing WIN+X or right-clicking on Start button.

Find Windows System folder from the list of apps and tap/click it.

In Windows System folder, click/tap Command Prompt.

Command Prompt should be opened immediately.

4. Using Command prompt shift to directory where utility file was unpacked. To do so, use command: cd /d {path to directory where the utility was unpacked}.

For example, if utility file is unpacked to "F:\UGCS\Distr\ugcs-telemetry-tool-2.11_new\" then command will have these parameters: cd /d F:\UGCS\Distr\ugcs-telemetry-tool-2.11_new

5. For immediate result use command with following parameters:

Converting to CSV: "tlm2csv -t 60 -f **Flight.tlm** -d ."

Converting to KML: "tlm2kml -t 60 -f **Flight.tlm** -d ."

Where "**Flight.tlm**" is name of your telemetry file.

For more details please go to:

https://github.com/ugcs/ugcs-java-sdk/tree/master/ucs-telemetry-tool

6. After completing previous steps, converted files will be created.

Output file format:

<vehicle name>-<flight start time>.csv

or

<vehicle name>-<flight start time>.kml

If telemetry file contains several drone flight data, then separate file for each drone will be created.

7. If files is not converted, please check JAVA_HOME system variable:

Enter "echo %JAVA_HOME%" command in Command prompt.

□ If path to Java directory is displayed, check correctness of entered command in Command prompt or telemetry file name.

□ If path to Java directory is not displayed, set value for JAVA_HOME system variable:

- Locate Java installation directory

If path wasn't changed during installation, it should be like this:

C:\Program Files\Java\jdk1.8.0_65

- Do one of the following:

Windows 7: Right click My Computer and select Properties > Advanced

Windows 8, 10: Go to Control Panel > System > Advanced System Settings

- Click the Environment Variables button

- Under System Variables, click New
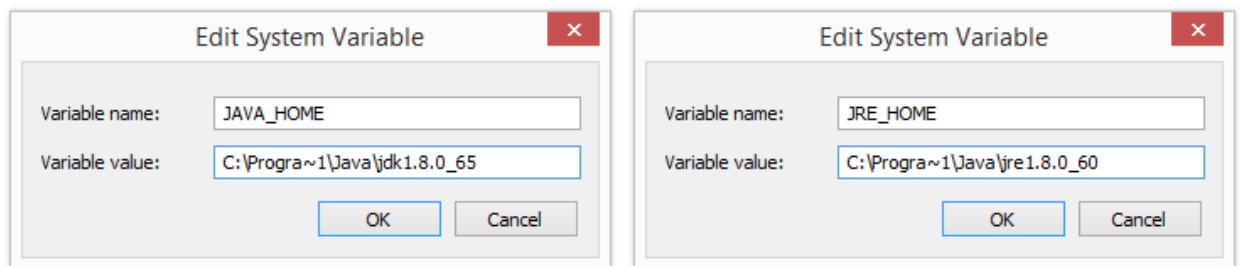
- In the Variable Name field, enter either:

JAVA_HOME if JDK (Java Development Kit) is installed

or

JRE_HOME if JRE (Java Runtime Environment) is installed

- In the Variable Value field, enter JDK or JRE installation path

If the path contains spaces, use the shortened path name. For example, C:\Progra~1\Java\jdk1.8.0_65

Note for Windows users on 64-bit systems

Progra~1 = 'Program Files'

Progra~2 = 'Program Files(x86)'

- Click OK and Apply Changes as prompted

Close and re-open any command windows that were open before these changeswere made, as there's no way to reload environment variables from an active command prompt. If the changes don't take effect after reopening command window, restart Windows.

After Windows restart repeat all steps from point 1.

8. If these recommendations didn't bring desired result,
   please contact UgCS technical support support@ugcs.com