How to access XRK files data without AiM software

Mar, 6th 2017

We've had requests in the recent past to open xrz/xrk files in order to access the data recorded by our devices using external software.
Most of the requests received till now were for MatLab(™) or custom developed software.

We developed a DLL that lets users accomplish this task in a very easy way.
You can download two complete examples to understand how to use the DLL.

Downloadable examples:

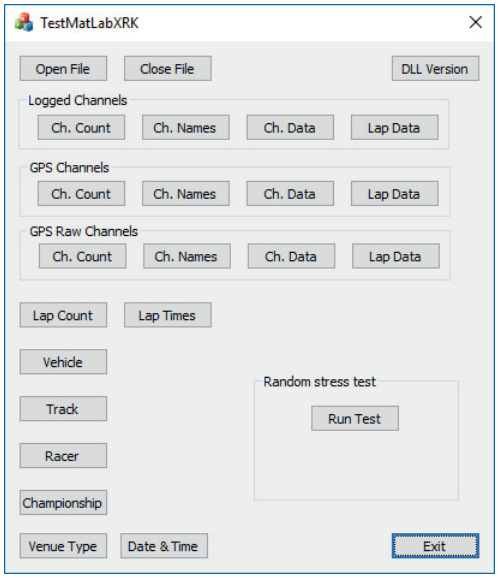
1. Visual Studio 2010
2. MatLab (™)
3. ...please don't forget to let us know about how you use the DLL! (write to software@aim-sportline.com)

Visual Studio 2010

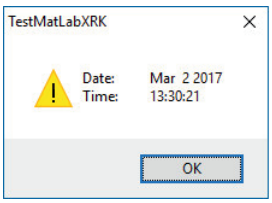
Download a zipped file with full source code here:

http://www.aim-sportline.com/aim-software-betas/DLL/TestMatLabXRK_20170302.zip

Unzip the file content on your hard disk, then identify the "**TestMatLabXRK.sln**" file and open it with Visual Studio 2010. Compile it and run it, you should see what in the following window:

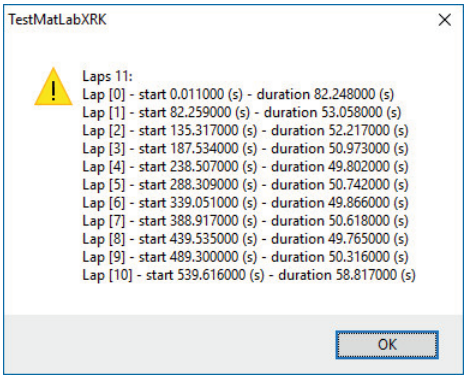


It's a simple dialog window that lets you test all DLL functions.
All functions are documented directly in the "**MatLabXRK.h**" file supplied. Few quick hints are given in the following lines.
"DLL Version" has to be used to verify the DLL build time and date.



AiM Tech Srl - Via Cavalcanti, 8 20063 Cernusco sul Naviglio, Milan - Italy | Tel. +39.02.9290571 | Fax +39.02.92118024
info@aim-sportline.com | www.aim-sportline.com

"Lap Times" are, as well as all other timing information, given in seconds.



"Vehicle", "Racer", "Championship" and "Venue Type" refer to data set by users into AiM loggers before the on track session, "Track" is automatically identified by the AiM loggers among all the tracks previously sent to them using RS3, "Date & Time" refers to start acquisition and is managed by the loggers themselves.

Channels data values are available on a session timing base, or a lap timing base.

Logged channels are 'according to device configuration'.

GPS channels are computed by the DLL upon GPS raw channels: GPS_Speed", "GPS_Nsat", GPS_LatAcc", GPS_LonAcc", GPS_Slope", GPS_Heading", GPS_Gyro", GPS_Altitude", GPS_PosAccuracy", GPS_SpdAccuracy", GPS_FreqAccuracy", GPS_East", GPS_North".

AiM Tech Srl - Via Cavalcanti, 8 20063 Cernusco sul Naviglio, Milan - Italy | Tel. +39.02.9290571 | Fax +39.02.92118024
info@aim-sportline.com | www.aim-sportline.com

MatLab (™)

Download a zipped file with full source code here:

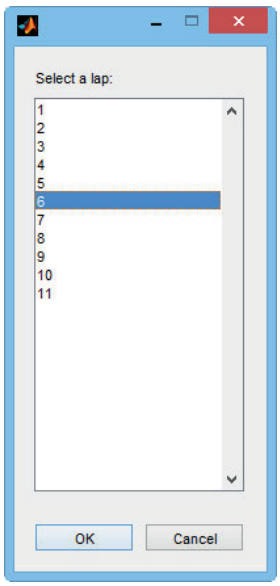
http://www.aim-sportline.com/aim-software-betas/DLL/TestMatLabXRK_m_20170303.zip

This example has been developed by:
Michael Metzner, metzner software engineering
http://www.metzner-se.com

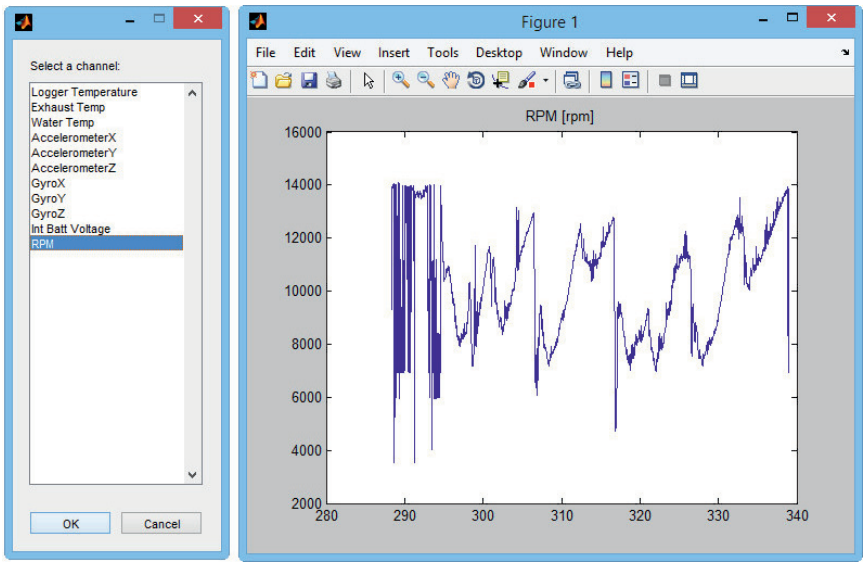
Unzip the file content on your hard disk, then load/run the "**XrkAccessExample.m**" file to see an example of how the dll works.

When calling the example script without any filename you'll be asked to select a XRK/XRZ file. Two sample files are supplied.

After loading the file you'll have to select a lap, like in the following window:

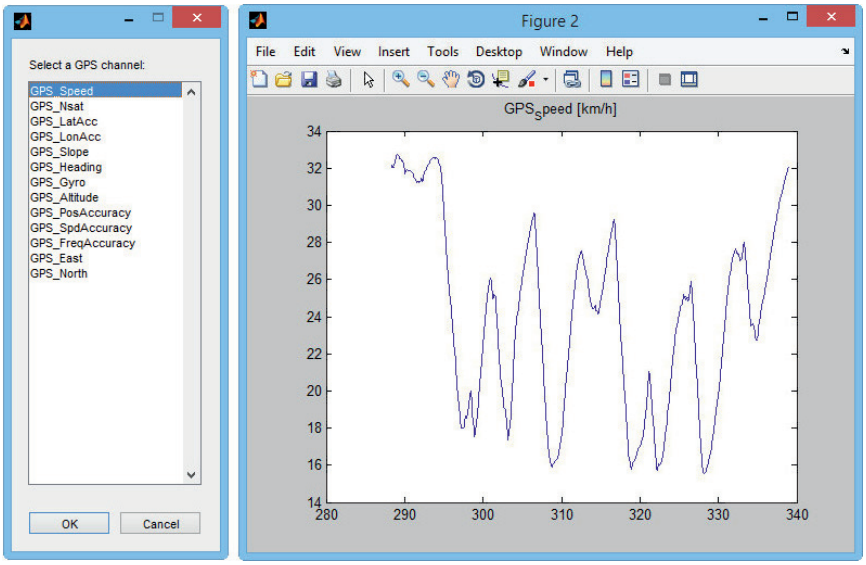


After lap selection you'll have to select a data channel and the corresponding data are plotted, like in the following two windows:

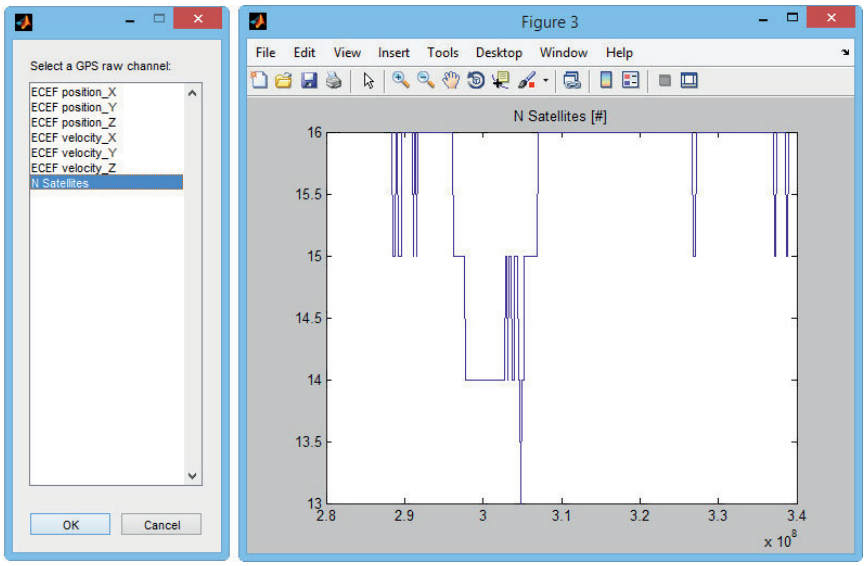


AiM Tech Srl - Via Cavalcanti, 8 20063 Cernusco sul Naviglio, Milan - Italy | Tel. +39.02.9290571 | Fax +39.02.92118024
info@aim-sportline.com | www.aim-sportline.com

Afterwards you'll be asked to select a GPS channel and the corresponding data are plotted, see the two following windows:

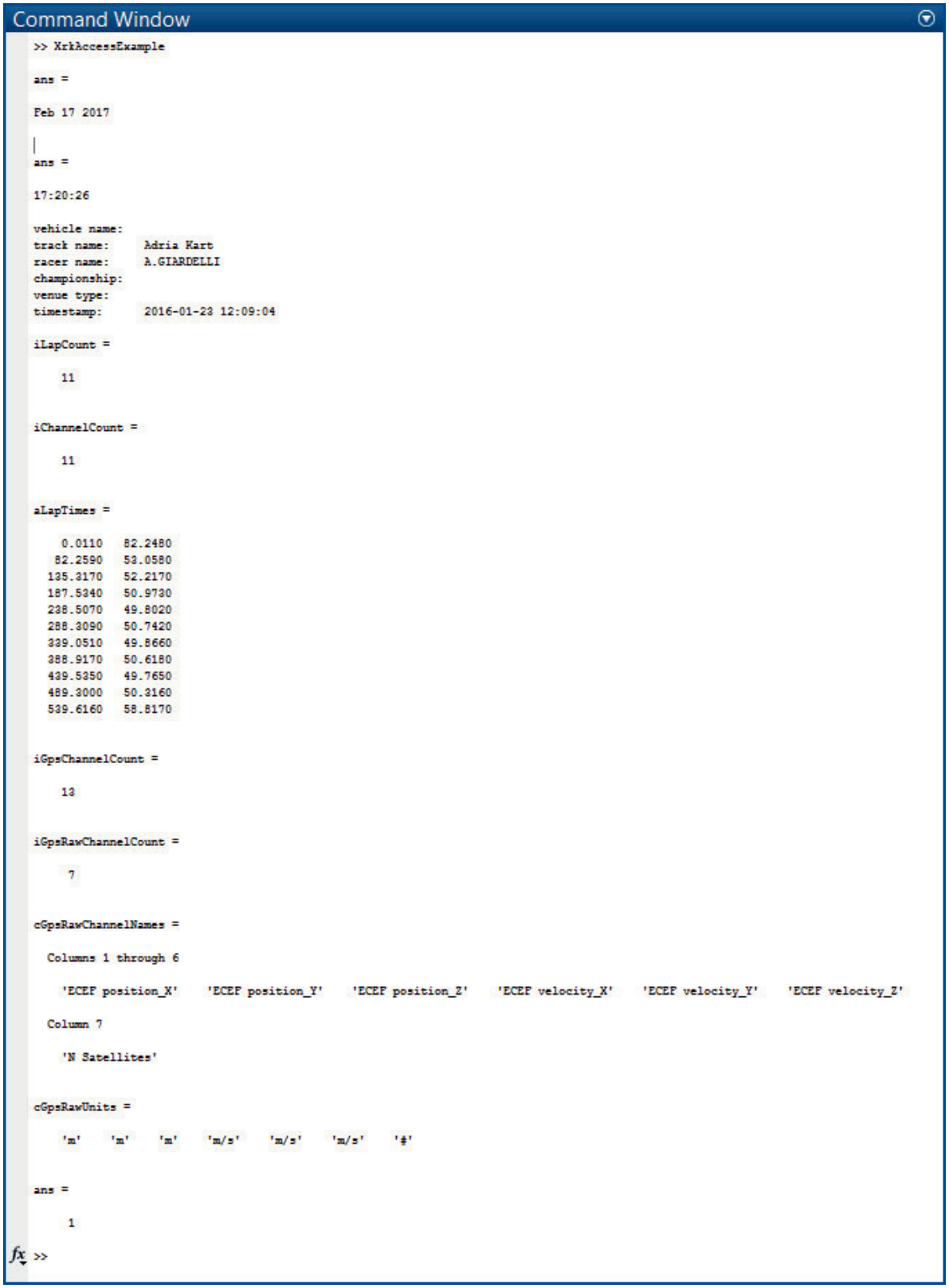


Finally you'll be prompted to select a GPS raw data channel and the corresponding data are plotted.



AiM Tech Srl - Via Cavalcanti, 8 20063 Cernusco sul Naviglio, Milan - Italy | Tel. +39.02.9290571 | Fax +39.02.92118024
info@aim-sportline.com | www.aim-sportline.com

The Matlab command windows, after running the example script, will look like the following figure.



AiM Tech Srl - Via Cavalcanti, 8 20063 Cernusco sul Naviglio, Milan - Italy | Tel. +39.02.9290571 | Fax +39.02.92118024
info@aim-sportline.com | www.aim-sportline.com