



MAK Data Logger 5.6 Release Notes

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Systems Supported

Table 1-1 lists the platforms currently supported by MAK Logger 5.6. Application code must be built with the indicated compilers in order to link to Logger libraries.

Table 1-1: Platforms supported

Platform	Compiler
Red Hat Enterprise Linux Workstation 7.0	Default compiler (64-bit)
PC with Windows 10	Microsoft Visual C++ 14.0 (64 bit)

MAK Logger 5.6 C# remote control API is supported on Windows only.

The VC 14 build is binary compatible with all MAK VC 15 products.

Logger API

You must have VR-Link 5.4.1 and its required compiler versions to link the Logger libraries, but you do not need it to run the executables. Please see VR-Link documentation for information about required compilers.

You must have a VR-Link developer's license to compile plug-in or applications using the Logger API.

Qt Toolkit Compatibility

The Logger GUI is built using the Qt Toolkit, a cross-platform GUI toolkit. Logger 5.6 uses Qt 5.10.1 (VC14) and Qt 5.6.3 (Red Hat 7). You do not need Qt to do development that does not affect the GUI.

If you plan to build the Logger GUI, you must download and install the appropriate version of Qt. You can download it at:
<http://www.mak.com/support/bonus-material>.

Qt is also available as a free download under the LGPL version 2.1 license at qt.digia.com. This version should be satisfactory for most Logger customers. If you need a Qt commercial license, you must purchase the license from Digia.

Starting MAK Applications on Windows 10

The Windows 10 “All apps” menu does not support the folder structure that MAK uses to organize startup shortcuts for applications, documentation, and tools. To take advantage of that structure, especially when navigating multiple versions, you can create a toolbar that points to the MAK Technologies shortcuts folder. Please see the tech tip on starting VT MAK applications on Windows 10 at <https://www.mak.com/learn/blog/entry/tech-tip-from-fred-starting-mak-applications-on-windows-10>.

Compiler Compatibility on Windows

Current and prior releases of MAK products have been compiled using different versions of the Visual C++ compiler. When you run MAK products together, for example, the Logger and VR-Vantage, we strongly recommend that you run versions created with the same compiler. Mixing products compiled with different compilers can result in program instability.



VC 14 and VC 15 are binary compatible.

License Manager

To run the licensed version of Logger, you must install license management software. Logger 5.6 uses FLEXlm 11.13.0.2. If you are upgrading from a version of the MAK Data Logger that used an older version of FLEXlm, you must upgrade your license management files. You do not need a new license. Licenses are forward compatible.

The License Manager files are not part of the Logger installer. You can download them at:

- ♦ Windows:
<http://ftp.mak.com/out/MAKLicenseManager-win-setup.exe> (for 32-bit systems)
<http://ftp.mak.com/out/MAKLicenseManager-win64-setup.exe>
- ♦ Linux: <http://ftp.mak.com/out/MAKLicenseManager-linux-setup.tar.gz> (for 32-bit systems)
<http://ftp.mak.com/out/MAKLicenseManager-linux64-setup.tar.gz>

License manager support is available at:

<http://www.mak.com/support/licenses>

ODBC Driver Support

The Logger database export feature supports the following ODBC drivers:

- ♦ MySQL ODBC 2.50 Driver
- ♦ MySQL ODBC 5.351 Driver
- ♦ MySQL ODBC 5.1 Driver
- ♦ MySQL ODBC 5.2w Driver.
- ♦ Microsoft Access.

A 64 bit connector is required.

The MySQL 5.1 server and connector can be downloaded at:

- ♦ server: <http://dev.mysql.com/downloads/mirror.php?id=411970>
- ♦ connector: <http://dev.mysql.com/downloads/mirror.php?id=411736>

Network Compatibility

Logger 5.6 is compliant with RPR FOM 1.0 and RPR FOM 2.0 and includes FOM mappers for many draft versions of the RPR FOM. It is compliant with RTIs that support the HLA 1.3 specification, the SISO DLC HLA API 1516 version of the IEEE 1516 specification (SISO-STD-004.1-2004), or HLA Evolved.

To use an RTI with Logger it must use the same operating system and be built with the same compiler.

Logger 5.6 supports DIS 4, 5, 6, and 7, and can therefore interoperate with DIS applications of any of these versions.

RTI Support

We recommend using the latest version of the MAK RTI. However, the Logger should work with other RTIs that conform to the HLA 1.3 specification, the IEEE 1516 SISO DLC API, or HLA Evolved and are built using the same compiler as your version of the Logger.

When using the MAK RTI, remember to make sure that the Logger can find your FED file, and optional *rid.mtl*, file by either putting them in the directory from which you are running, or by setting the environment variable the directory that contains them.

FOM Support

Logger 5.6 has built-in support for RPR FOM versions 0.5, 0.7, 0.8, 1.0, 2.0 drafts 6, 14, 17, and 20, and RPR FOM 2.0 final version. It also supports VR-Link's ability to support alternative FOMs through the FOM Mapper. By default, Logger 5.6 uses RPR FOM 2.0.

For information about FOM mapping and selecting the correct FOM Configuring the Logger for HLA in Chapter 2, "Installing and Configuring the Logger", in *MAK Data Logger Users Guide*.

Backwards Compatibility

Logger 5.6 can play files recorded with previous versions. It may prompt you to save them to the current format. The Logger file format changed in Logger 5.4. Files recorded by Logger 5.6 cannot be played by Logger 5.3 or earlier.

New Features

Logger 5.6 has the following new features.

- ♦ Added noRtiCompilerCheck command line argument to Logger. Added the parameter to the connection command in the lgrConfig files as well for HLA only.

The default value is False (0), meaning that VR-Link will throw an exception if the RTI libraries found do not match the compiler version of the Logger. Setting the value to True (1) prevents VR-Link from throwing an exception. The compiler check is still performed, however; it prints a warning instead of throwing an exception.

- ♦ Added optional "floating" argument to addGuiComponent to add the component as its own separate floating window. The default value is False, docking the component.

By default, the Video Playback is not docked and appears outside the main window. It can be docked.

Documentation Updates

All documentation has been updated for this release.

Bug Fixes

This release fixes the following problems:

- ♦ Remote control interface can be used without GStreamer libraries. 61231
- ♦ Display of radar beam data in Traffic Analyzer was causing a crash in some conditions. The crash has been eliminated. 61361
- ♦ PDUs recorded with an absolute timestamp use the same absolute timestamp when they are played back. 63415

Known Problems

This section lists known problems with Logger functionality:

- ♦ The HLA 1516 Logger crashes on exit if you use the MAK RTI 2.4.2 through 3.1.1. This is due to a problem in the RTI.
- ♦ Logger files that include the VR-Forces embarkation feature in DIS exercises do not reset embarkation status after time jumps. To correct the embarkation state of entities, stop playback and start playing the file from the beginning.
- ♦ On Linux, online help may not work if the Logger lib directory is not in the LD-LIBRARY_PATH or the RTI *lib* directory is before it.

Playing HLA 1.3 Logger Files in HLA 1516 Federations

In general, the Logger uses the same file format for HLA 1.3 and HLA 1516 Logger files. You can record a Logger file from an HLA 1.3 federation, and play it back into an HLA 1516 federation (and vice versa). However, you must use the same FOM representation during record and playback. For example, if you use an HLA-1.3-style FED file during recording, you must use an HLA-1.3 style FED file during playback, even if you are using the IEEE 1516 version of the Logger and an IEEE 1516 RTI. (VR-Link and the MAK RTI allow you to use HLA-1.3-style FED files with IEEE-1516-based federates, and vice versa).

The main reason that consistency in FOM format is necessary is that IEEE 1516 uses different names for the "Root" classes of the Object class hierarchies. A 1.3-style FED file requires a Root class a 1516-style XML files requires a Root class called *HLAObjectRoot*. The reason this can be a problem is that if the Logger is playing an HLA-1.3-based Logger file into a federation that is using a 1516-based XML file it might come across an instance of a class called, for example, "ObjectRoot.Vehicle". If it tries to register an object of this class, the RTI will complain that no such class exists. There might be a class called *HLAObjectRoot.Vehicle* in the current FOM, but the RTI or Logger does not know that this is actually the same class.