



VR-Link 5.9.1 Release Notes

This release note contains release-specific information for VR-Link 5.9.1.

Systems Supported and System Requirements	2
Compiler Compatibility on Windows	2
Disk Space Requirements	2
License Manager	2
RTI Support	2
New Features and Updates	3
Fixed Bugs	3
Feature List	6
Known Problems	6

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Systems Supported and System Requirements

For information about platform and system support, see the Product Specifications & Dependencies page on the MAK website at: <https://www.mak.com/mak-one-specs>.

For hardware requirements, see <https://www.mak.com/mak-one/support/help/hardware-recommendations>.

VR-Link for C# supports all Windows compilers.

VR-Link for Java supports all compilers and operating systems. VR-Link for Java requires Java 9.

Compiler Compatibility on Windows

MAK provides versions of product releases that have been compiled with different versions of Microsoft Visual C++. MAK ONE products built with VC 14 and later are binary compatible and will work together. When you run MAK ONE products together on the same computer, for example, the Logger and VR-Vantage, we strongly recommend that you run versions compiled with the same compiler or binary compatible compilers.

Disk Space Requirements

A full installation of VR-Link requires approximately 1.5 GB of disk space on Windows or 2 GB on Linux.

License Manager

VR-Link 5.9.1 uses FLEXlm 11.17.1. You must install the license management software to run VR-Link.

The MAK License Manager files are not part of the VR-Link installer. You can download them from the MAK ONE Product Downloads page (<https://www.mak.com/mak-one-downloads>).

Installation of the license manager is covered in the *MAK ONE Installation Guide*, available online at <https://mak.com/mak-one-installation-guide>. Support is also available at <https://www.mak.com/mak-one/support/portal>.

RTI Support

We recommend using the latest version of the MAK RTI. However, VR-Link 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 VR-Link.

When using the MAK RTI, remember to make sure that VR-Link 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 to the directory that contains them.

New Features and Updates

VR-Link 5.9.1 has the following new features and updates.

- DIS Spy is now built off of the .net8.0 target framework.
- VR-Link Code Generator projects no longer include the HLA Standard MIM classes by default. The HLA Standard MIM can be included into Code Generator projects through the Preferences dialog, the code generator config file, or with the new `--includeMim` or `-M` command-line option.

Fixed Bugs

Table 1. Fixed Bugs

Key	Summary	Release Notes	Fix Version/s
VRL-751	CodeGenerator - fails to register encoders/decoders with lowercase names	Fixed an issue in the VR-Link Code Generator that affected the generation classes for the HLA datatypes (HLAbyte, HLAunicodeChar, etc.).	VR Link 5.10, VR Link 5.9.1
VRL-760	DtInetEndpoint didn't always initialize correctly leading to crash	Fixed to ensure that DtInetEndpoint properly initializes the endpoint pointer members. Previously, if they were deleted while being initialized, VR-Link could crash.	VR Link 5.10, VR Link 5.9.1
VRL-770	C# Code Generator - Array and VariantRec compiler errors	Fixed errors that centered around the octetBoundary functions for array datatypes and variant record datatypes.	VR Link 5.10, VR Link 5.9.1

Table 1. Fixed Bugs (continued)

Key	Summary	Release Notes	Fix Version/s
VRL-771	C# Code Generator - VariantRec octetBoundary calculation	Changed the function to have it compare each alternate boundary and only set the value if it's larger than the current alternate boundary.	VR Link 5.10, VR Link 5.9.1
VRL-777	Reflected DI-Guy objects can have stale decoder repository if DI-Guy entity is deleted but not the corresponding DI-Guy object	Fixed by adding an additional check.	VR Link 5.9.1
VRL-788	C# Examples do not set Geocentric coordinates correctly	Added call to inverse the CoordinateTransform before returning from the CoordinateTransform geocToTopoTransform(double lat, double lon) function.	VR Link 5.10, VR Link 5.9.1
VRL-795	Spam issue with Transmitter PDUs	Changed an argument to prevent an update every tick that was causing the message spam.	VR Link 5.10, VR Link 5.9.1
VRL-800	Code Generator - Enum header does not use custom namespace	Updated the template to prevent enumerations from colliding between the generated code and MAK product code. This improves the Code Generator's option to put all generated code into a namespace.	VR Link 5.10, VR Link 5.9.1

Table 1. Fixed Bugs (continued)

Key	Summary	Release Notes	Fix Version/s
VRL-803	Crash in DtParallelExecutionContainer with Emitter Systems and Beams	Fixed by forcing the registerHlaObject function to run serially, even when executed from a parallel execution container.	VR Link 5.10, VR Link 5.9.1
VRL-806	Fix crash in DtReflectedEmitterSystemList::objectAdded function	VR-Link no longer attempts to print a "Discovered EmitterSystem" message when creating a stand-in reflected Emitter System object for a discovered Emitter Beam, preventing a crash.	VR Link 5.10, VR Link 5.9.1
VRL-807	DtCallsignRecord and DtSymbolIdRecord padding length not set when created via setFromNet	Fixed by ensuring that the padding fields are initialized in the setFromNet call. It can be set to 0 or can be calculated by taking the difference of the record size and the size of the data.	VR Link 5.9.1

Feature List

Table 2. Feature List

Key	Summary	Release Notes	Fix Version/s
VRL-752	CodeGenerator - add command line option to exclude MIM from generated code	VR-Link Code Generator projects no longer include the HLA Standard MIM classes by default. The HLA Standard MIM can be included into Code Generator projects through the Preferences dialog, the code generator config file, or with the new --includeMim or -M command-line option.	VR Link 5.10, VR Link 5.9.1
VRL-784	Upgrade DisSpy to supported .net8.0 target framework	DIS Spy is now built off of the .net8.0 target framework.	VR Link 5.10, VR Link 5.9.1

Known Problems

Problems can arise with any product. MAK has a knowledge base of the problems that we know about, which is always changing as new problems are identified and new solutions are found. To learn how to address known problems with VR-Link and other MAK ONE products, access the MAK ONE Product Support Knowledge Base:

<https://www.mak.com/knowledge>.

If the problem you are experiencing is not addressed in the knowledge base, contact support for assistance: <https://www.mak.com/support>.