



MÄK Data Logger 3.10 Release Notes

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Systems Supported

Logger 3.10 is being released for the following platforms:

- ♦ PC with Windows 2000/XP
- ♦ Red Hat Linux 8.0 and 9.0
- ♦ SGI IRIX 6.5 n32
- ♦ Sun Solaris version 2.8.

Logger API and Logger File API

You must have VR-Link 3.9.1 and its required compiler versions to use the Logger file library or the Logger API, but you do not need it to run the executables. See VR-Link documentation for information about required compiler versions.

You must have a VR-Link developer's license to compile plug-ins or applications that use the Logger API or Logger file API.

Qt Toolkit Compatibility

The Logger GUI is built using the Qt Toolkit, a cross-platform GUI toolkit. If you use the Logger API to change the GUI, you need to get a Qt license and install Qt. Logger 3.10 was built with Qt 3.3.1.

RAM and Memory Requirements

To install and run the Logger on a PC, we recommend the following minimum configuration:

- ♦ Pentium class PC 400 MHz or above
- ♦ 110 MB disk space
- ♦ 64 MB RAM.

On UNIX systems, the Logger requires the following amount of disk space:

- ♦ Linux - 110 MB
- ♦ Sun Solaris - 144 MB
- ♦ SGI IRIX - 285 MB.

Network Compatibility

HLA only

Logger 3.10 was built against VR-Link 3.9.1 and is compliant with:

- ♦ RPR-FOM 1.0 and a subset of 2.0 (draft 6, 14, and 17)
- ♦ MÄK RTI 2.2
- ♦ DMSO RTI NG v6.

Logger 3.10 is compatible with applications that use earlier versions of VR-Link if they support versions of the RPR FOM listed above.

DIS only

Logger 3.10 supports DIS 2.0.4, IEEE 1278.1, 2.1.4, and IEEE 1278.1a, and can therefore interoperate with DIS applications of any of these versions.

RTI Support

Logger 3.10 works with the MÄK RTI 2.2, and DMSO RTI NG v6.

Logger 3.10 works with older versions of the MÄK RTI, but we recommend using it with release 2.2.

When using the MÄK Real-time 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 RTI_CONFIG to the directory that contains them.

FOM Support

Logger 3.10 has built-in support for versions 0.5, 0.7, 0.8, 1.0, and 2.0, drafts 6, 14, and 17, of the RPR FOM. It also supports VR-Link's ability to support alternative FOMs through the FOM Mapper. By default, Logger 3.10 uses RPR FOM 1.0.

The keywords for specifying different versions of the RPR FOM with the `-f` startup option are:

- ♦ RPR FOM 0.5: `v1RPR05`
- ♦ RPR FOM 0.7: `v1RPR07`
- ♦ RPR FOM 0.8: `v1RPR08`
- ♦ RPR FOM 1.0: `v1RPR10`
- ♦ RPR FOM 2.0 draft 6: `v1RPR20006`
- ♦ RPR FOM 2.0 draft 14: `v1RPR20014`
- ♦ RPR FOM 2.0 draft 17: `v1RPR20017`.

For information about FOM mapping and selecting the correct FOM mapper, see Configuring the Logger for HLA in Chapter 2, "Installing and Configuring the Logger", in *MÄK Data Logger User's Guide*.

New Features and Changes

Logger 3.10 has the following new features and changes:

- Filtering by entity type, entity ID and PDU in DIS and object or class in HLA.
- Implementation of keyboard shortcuts for Logger menu options and playback and record controls.
- New startup options and configuration parameters.
- Support for exporting Logger data to SQL databases.

Filtering Objects and Interactions

Logger 3.10 supports filtering of data while the Logger is recording a simulation or while it is playing a recording. In DIS, you can filter by entity type, entity ID, and PDU kind. In HLA, you can filter by object and interaction class during record and playback, and you can also filter by object during playback. For details about filtering, see “Filtering Logger Input and Output,” on page 4-9, in *MÄK Data Logger User’s Guide*.

Exporting Logger Data to SQL Databases

Logger 3.10 supports export of Logger data to databases that have an ODBC driver. The *sqlSender* plug-in allows you to export data while the Logger is recording a simulation or playing a recording. You can use the *sqlSender* application to export data from a recording independently of the Logger application. For details, see “Exporting Logger Data to A Database,” on page 6-1, in *MÄK Data Logger User’s Guide*.

New Startup Options and Configuration Parameters

The Logger has the following new startup options and associated configuration parameters:

Table 1-1: New startup options and MTL parameters

Startup Option	MTL Parameter	Description
<code>-y {0 1}</code>	<code>noFiltering</code>	Enables and disables filtering.
<code>-Y {0 1}</code>	<code>noArtPartScaling</code>	Enables and disables movement of articulated parts when the Logger is paused.
<code>-Z low:high</code>	<code>vrfMsgRangeLo</code>	Sets the low end of the VR-Forces message range to be filtered.
	<code>vrfMsgRangeHi</code>	Sets the high end of the VR-Forces message range to be filtered.
	<code>enablePipelineStage</code>	Replaces enable parameter for enabling pipeline stage plug-ins.

Table 1-1: New startup options and MTL parameters

Startup Option	MTL Parameter	Description
<code>-k script</code>		Windows only: Specifies a Logger script file to load and run.
DIS Only		
<code>-x</code>	<code>exerciseld</code>	DIS only: Sets the exercise ID.
	<code>customPdus</code>	Specifies a list of PDUs to include in filtering dialog boxes.
	<code>commonEntityType</code>	Specifies a list of entity types to include in the Common Entity Types list in the Filter by Entity Type dialog box.
HLA Only		
<code>-x name</code>	<code>federationName</code>	Specifies the name of the federation execution.
<code>-N name</code>	<code>federateName</code>	Specifies the name of the Logger federate.
<code>-q {0 1 2}</code>	<code>messageTagType</code>	Specifies the content of the message tag for updates generated by the Logger.

Keyboard Shortcuts

Menu options in the Logger GUI now have keyboard shortcuts and accelerators to allow you to manipulate the GUI from the keyboard. They are listed in the Logger Quick Reference Card, which is located just inside the back cover of *MÄK Data Logger User's Guide*.

Documentation Updates

MÄK Data Logger User's Guide has been updated for this release.

Fixed Bugs

The following problems have been fixed:

- When the Logger pauses, articulated parts now stop moving. This change will be observable in 3D viewing applications if their models model articulated parts.
- In DIS, when the Logger stops playing a recording, entities are removed immediately instead of having them time out.
- The HLA versions of the Logger utilities *lgrCat* and *lgrMerge* no longer remove all packets corresponding to interactions.
- In the HLA versions of Logger, the copy constructor of *LtHandleValueSet* (and by extension, the copy constructors of *LtAttributeHandleValueSet*, *LtParameterHandleValueSet*, and *LtPacketInfo*, as well as the assignment operator and clone method of *LtPacketInfo*) now work correctly.
- During playback, in the HLA versions of the Logger, object classes that were mismatched to inappropriate publishers are now mapped to the correct publishers.
- During playback, the HLA 1.3 version of the Logger no longer has a memory leak occurring for every issued interaction.
- Time regulating playback now works correctly in the HLA 1561 version of the Logger.

Known Problems

Logger 3.10 has the following known problems:

- If you run the MÄK RTISpy LRC GUI with the Logger, the Logger may crash the second time you play a recording.
- In DIS, when you play a recording immediately after you have recorded it, the Logger displays the following error message:

```
Tried to subtract InterestInPduKind to be lower than the number of  
callbacks for PDU kind #0.
```

You can ignore this message.

- Skip time in HLA performs poorly if you try to skip a large amount of time or try to skip backwards in the recording.
- When you export data to a database, if objects in the simulation have articulated parts, you may receive errors message indicating that there is a problem copying the articulated parts data.