



MÄK Data Logger 3.8.2-ngc Release Notes

This document provides the following release-specific information for MÄK Data Logger 3.8.2-ngc:

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Document ID: LOG-3.8.2-2-040126

Systems Supported

Logger 3.8.2-ngc is being released for the following platforms:

- ♦ PC with Windows 2000/XP/NT 4.0
- ♦ Red Hat Linux 7.2 and 8.0
- ♦ SGI IRIX 6.5 n32
- ♦ Sun Solaris version 2.8.

Logger API and Logger File API

You must have VR-Link 3.8.1 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 3.8.2-ngc was built with Qt 3.1.2.

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
- ♦ 52 MB disk space
- ♦ 64 MB RAM.

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

- ♦ Linux and Sun Solaris - 52 MB
- ♦ SGI IRIX - 70 MB.

Online Help Browser Requirements

The online help system included with this release of the Logger is an HTML-based system. To view online help, you must have a web browser installed that supports Javascript. Javascript must be enabled.

Network Compatibility

HLA only

Logger 3.8.2-ngc was built against VR-Link 3.8.1-ngc and is compliant with:

- ♦ RPR-FOM 1.0 and a subset of 2.0 (draft 6 and 14)
- ♦ MÄK RTI 2.1 or 2.0.3-ngc
- ♦ DMSO RTI NG v6.

Logger 3.8.2-ngc is compatible with applications that use earlier versions of VR-Link if they support versions of the RPR FOM listed above.

DIS only

Logger 3.8.2-ngc 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 3.8.2-ngc works with the MÄK RTI 2.1 and DMSO RTI NG v6.

Logger 3.8.2-ngc works with older versions of the MÄK RTI, but we recommend using it with release 2.1 or 2.0.3-ngc.

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 3.8.2-ngc has built-in support for versions 0.5, 0.7, 0.8, 1.0, and 2.0, drafts 6 and 14, of the RPR FOM. It also supports VR-Link's ability to support alternative FOMs through the FOM Mapper. By default, Logger 3.8.2-ngc 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`.

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 3.8.2-ngc has the following new features and changes:

- New, updated, and changed startup options
- Updated text interface and support for scripting
- Changes to the Annotations window and procedures.

Changes to Startup Options

MÄK Data Logger 3.8.2-ngc has the following new, changed, and updated startup options:

- `-d {0,1}` – enables and disables data-scaling (DIS only). In Logger 3.8.1 this option only disabled data-scaling. Now it can enable and disable data-scaling.
- `-D {0,1}` – enables and disables remote file deletion.
- `-F FED_file_name` – specifies a FED file to use (HLA only).
- `-g {h,w,t,b[wt,tw]}` – specifies the type of interface to use (this was previously done with the `-G` option).



The `-gh` option (Windows only) specifies that no interface (neither GUI nor text) is displayed. (On Unix platforms the `-gh` and `-gt` options have the same effect.)

- `-G lang` – specifies the language to use if you create translation files. The *lang* argument must be one of the language specifiers defined by Qt. Logger 3.8.2-ngc is distributed with translation files for Hebrew (language specifier `iw`) and Spanish (language specifier `es`).
- `-i {0,1}` – enables or disables the Ignore advisory messages flag (HLA only). In previous releases this option could only enable the Ignore advisory messages flag. Now it can enable and disable it.
- `-I {0,1}` – enables or disables asynchronous IO (DIS only). In previous releases this option could only enable asynchronous IO. Now it can enable and disable it.
- `-l multicast_time_to_live` – specifies the multicast time-to-live value in DIS. In HLA this option has the same meaning as before, that is, it specifies the lookahead time-interval for playback in HLA time-regulating mode.
- `-m {0,1}` – enables or disables the Mirror Logger Actions flag. In Logger 3.8.1 In previous releases this option could only enable Mirror Logger Actions. Now it can enable and disable it.
- `-N federate_name` – specifies a name for Logger federate (HLA only). This option is particularly useful if there is more than one Logger in a federation.

- ♦ `-n general_notify_level:logger_notify_level` – allows you to specify notification levels for all VR-Link messages and Logger-specific messages. This option has changed the interpretation of its argument. It now parses the argument as a pair of colon-separated numbers, specifying the general and the Logger-specific notification levels respectively.

The `-n` option accepts an argument that specifies just one notification level, for example `-n4` or `-n4:` sets the general notification to 4, while `-n:3` sets the Logger-specific notification to 3.

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Since the Logger-specific notification messages are a subset of the general notification messages, it does not make much sense to specify a Logger-specific notification level that is lower than the general notification level – the Logger-specific messages will still be issued at the higher level (specified by the general notify level). In other words, the new form of the `-n` option does not imply (and does not enable) the capability to filter out Logger-specific messages, it only allows for the filtering of non-Logger-specific messages.

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- ♦ `-P {0,1}` – enables or disables passive subscription in HLA. In DIS this option has the same meaning as before, that is, it specifies the port number to use. The change (in HLA) is that in Logger 3.8.1-ngc the option could only enable passive subscription. Now it can enable or disable it.
 - ♦ `-Q {0,1}` – enables or disables use of 64-bit File IO. In Logger 3.8.1 this option the option could only enable 64-bit File IO. Now it can enable or disable it.
 - ♦ `-S subscription_file` – creates a default subscription control file and exits (HLA only). This was the `-F` option (in HLA) in previous releases. In DIS the option is the same as before – it specifies additional multicast addresses to use.
 - ♦ `-z log_file` – specifies a name for the log file (Windows only). This option is useful if you run more than one Logger from the same directory, where each Logger can have its own log file (by default the Logger uses file *logger.txt* in the directory from which it is being run as its log file).

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If you have any scripts or batch files that use the `-F` or `-n` startup options, you must update them to take into account the new meanings of these letter options.

Updated Text Interface and Support for Scripting

From Logger 3.7-ngc release through 3.8.1-ngc, the MÄK Data Logger did not support scripting (that is, running and commanding the Logger via a script file). Logger 3.8.2-ngc restores scripting and expands its capabilities by adding new commands to the text interface, and by expanding the functionality of the "wait" command. The new text-interface commands are:

- ♦ `onEofAct {wrap,stop,pause}` – sets the "End Of File" action
- ♦ `onPbAct {play,stop}` – sets the "On Load File For Playback" action
- ♦ `onRcAct {record,stop}` – sets the "On Load File For Recording" action
- ♦ `fio64bit {0,1}` – enables and disables the "Use 64-bit File IO" flag
- ♦ `mirror {0,1}` – enables and disables the "Mirror Logger Actions" flag
- ♦ `passiveSubscribe {0,1}` – enables and disables the "Passive Subscribe" flag in HLA
- ♦ `timeConstrained {0,1}` – enables and disables the "Time-Constrained Mode" flag in HLA
- ♦ `timeRegulating {0,1}` – enables and disables the "Time-Regulating Mode" flag in HLA
- ♦ `lookahead time-value` – specifies the lookahead time-interval in HLA.

The "wait" command now accepts a set of arguments, allowing it to specify different modes of flow control. The allowed usage of wait is:

- ♦ `wait MODE_STOP` – wait until the Logger is in STOP state
- ♦ `wait MODE_PAUSE` – wait until the Logger is in PAUSE state
- ♦ `wait TAPE_END` – wait until the Logger reaches tape-end
- ♦ `wait TAPE_START` – wait until the Logger reaches tape-start
- ♦ `wait TAPE_TIME time` – wait until the Logger reaches tape-time *time*
- ♦ `wait time-interval` – wait (n real time) for *time-interval* seconds.



The use of the wait command without an argument is no longer supported, that is, the wait command must always be issued in one of the forms listed above.

Changes to Annotation Procedures

Annotation procedures have been changed, as follows:

- ♦ The Insert Annotation window has been removed. You now add annotations directly in the View Annotations window, which has been editable in previous releases. When you choose Edit → Add, the Logger adds a blank line to the View Annotations annotations list. Type your annotation in the blank line.
- ♦ The View Annotations window has a new button, Remove Annotation, which you can click to remove an annotation, instead of choosing Edit → Remove.
- ♦ You can use keyboard shortcuts to add, remove, and jump to annotations, as follows:
 - Ctrl-A – add annotation
 - Ctrl-D – remove annotation
 - Ctrl-J – jump to the selected annotation.

Documentation Updates

Please note the following corrections to *MÄK Data Logger User's Guide*:

- ♦ The printed version of *MÄK Data Logger User's Guide* states that the MÄK RTI comes with, or is included with, all MÄK products. These statements mean that the MÄK RTI software is on product CDs. It does not mean that purchase of a MÄK product includes a MÄK RTI license. The MÄK RTI is licensed separately from other MÄK products.
- ♦ Section 7.5.4, Loading Plug-ins says that the Logger loads all plug-ins that are in the `./plugins` directory. This is incorrect. You must place plug-ins in the `./plugins/bin5` or `./plugins/binRPR` directory.
- ♦ Section 2.6, Localizing the Logger Interface, in *MÄK Data Logger User's Guide*, does not describe how to implement the translation files. The following section updates section 2.6.

Applying the Language Files

To put the language file into effect:

1. Set your computer's environment to the proper language.
2. Set the `language` variable in `logger.mtl` to the correct language, or start Logger with the `-G` command line option.

Fixed Bugs

The following problems have been fixed:

- The Logger GUI now updates properly after a change the Logger's state changes due to the issuance of a Logger command from another Logger interface (for example, text interface or remote-control interface).
- "Total State" requests are now handled properly. In previous releases the Logger did not respond to this request, or (in version 3.8.1) it often crashed when trying to send a "Total State" Logger-control PDU.
- Corrected and expanded the *lgrControl* and *lgrMirror* example applications (demonstrating Logger Remote-Control agent and Logger Remote monitor agent respectively).
- Logger- control PDUs recorded in a Logger tape were not filtered properly during playback.
- Logger 3.8.2-ngc subscribes to Logger-control interactions by default. In previous releases, Logger control interactions were not part of the default subscription list.
- Reverse-direction playback initiated from a state of EndOfTape, STOP mode, when this state was reached via a normal playback in forward direction and EOF action of STOP now works correctly.
- The Logger had a maximum packet size and could not play recordings that had packets larger than this size. There is no longer a maximum allowed packet size, Logger 3.8.2 can handle plackets of arbitrary size.
- The time-scale slider in the Logger GUI now updates properly when you move it with mouse clicks. It also updates properly if you change the time scale using the Time Scale dialog box.
- The Logger no longer goes into a paused state if you set the time-scale to zero, leave it there for a few seconds, then change it back to nonzero value.
- The Logger utilities on Windows (*lgrCat*, *lgrMerge*, *lgrOffset*, and *lgrTrim*) do not generate corrupt output.

Known Problems

Logger 3.8.2-ngc 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.