



MÄK Gateway 4.1 Release Notes

This release note provides release-specific information for MÄK Gateway Release 4.1.

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System Requirements

This section lists supported platforms and hardware and software requirements.

Platforms Supported

The Gateway Release 4.1 supports:

- ♦ Windows NT 4.0/2000/XP
- ♦ Red Hat Linux 8.0.

Software Requirements

The Gateway uses various supporting software packages. Refer to manufacturers' instructions for installation.

- ♦ One of the following RTIs for your operating system:
- ♦ MÄK RTI 2.x
- ♦ DMSO RTI-NG 1.3 v6 (Windows only).

RPR FOM Support

The Gateway 4.1 release supports the following versions of the RPR FOM:

- ♦ RPR FOM 0.5 – *VR-Link05.fed*
- ♦ RPR FOM 0.7 – *VR-Link07.fed*
- ♦ RPR FOM 0.8 – *VR-Link08.fed*
- ♦ RPR FOM 1.0 – *VR-Link10.fed*
- ♦ RPR FOM 2.0 draft 6 – *VR-Link20006.fed*
- ♦ RPR FOM 2.0 draft 14 – *VR-Link20014.fed*

See Section 3.2.2, “Specifying the FOM Mapper and FED File to Use,” in *MÄK Gateway User’s Guide* for details about how to use different versions of the RPR FOM.

DIS Protocols and RTIs Supported

HLA only

Gateway 4.1 was built against VR-Link 3.9 and is compliant with:

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

Gateway 4.1 is compatible with applications that use earlier versions of VR-Link if they support versions of the RPR FOM listed above.

DIS only

Gateway 4.1 supports DIS 2.0.4, IEEE 1278.1, and IEEE 1278.1a, and can therefore interoperate with DIS applications of any of these versions. By default, the Gateway receives all three versions of DIS and sends IEEE 1278.1.

New Features and Updates

This release of the MÄK Gateway has the following changes:

- ♦ Support for the HLA 1516 specification.
- ♦ Support for filtering out (not translating) objects
- ♦ Enhancements to the GUI display.
- ♦ New configuration parameters
- ♦ Changes to how the Gateway responds to incomplete discovery of HLA objects.

Support for the HLA 1516 Specification

Gateway 4.1 supports the SISO Dynamic Link Compatibility HLA API Product Development Group (HLA API PDG, <http://www.sisostds.org/index.cfm>) draft 1516 API. This API, unlike the IEEE 1516 API, supports dynamic link compatibility between different RTI implementations.

If you use the 1516 version of the Gateway, all HLA objects created by the Gateway are given a name chosen by the RTI, not the Gateway.

Filtering the Translation of Objects

You can now specify that particular objects not be translated. You can specify objects by:

- ♦ DIS ID
- ♦ HLA ID
- ♦ The HLA RPR FOM entity ID attribute.

You can specify objects to filter in the *gateway.mtl* file and you can filter and unfilter objects dynamically through the GUI. For details, see the PDF version of *MÄK Gateway User's Guide* provided with this release or online help.

Enhancements to the GUI Display

Gateway 4.1 has the following new features in the GUI:

- ♦ Marking text is displayed in the Object view
- ♦ You can hide or display the HLA ID, Marking Text, and Updated columns in the Objects view
- ♦ You can hide the display of objects in the GUI
- ♦ The number of discovered objects is displayed for each translator type, for example, EntityState(20), RadioTransmitter(10), and so on.
- ♦ The column order has been changed.

The new GUI features are fully described in online help and the PDF version of *MÄK Gateway User's Guide* provided with this release.

New Configuration Parameters

The *gateway.mtl* file has the following new parameters. See Appendix A, *Gateway MTL Parameters*, in *MÄK Gateway User's Guide*, or the comments in *gateway.mtl* for a complete description of each parameter.

- ♦ **disSocketReceiveBufferSize** – sets the DIS socket's buffer received size
- ♦ **publisherTickInterval** – specifies the time between ticks of all Gateway publishers
- ♦ **disUseAsynchIO** – lets you use asynchronous I/O for the DIS side of the Gateway
- ♦ **disMcastDevice** – specifies the address to use for multicast traffic
- ♦ **renameDisObjects** – remaps all DIS entity IDs to match the Site/Host ID's in the *gateway.mtl* file
- ♦ **showMarkingText** – enables or disables display of the Marking Text column at startup
- ♦ **showHlalds** – enables or disables display of the HLA ID column at startup
- ♦ **displayLastUpdateThreshold** – specifies the minimum amount of time between updates of the Updated column
- ♦ **disObjectFilters** – specifies a list of DIS objects to filter out (not translate)
- ♦ **hlaObjectFilters** – specifies a list of HLA objects, by HLA ID, to filter out (not translate)
- ♦ **hlaEntityIdObjectFilter** – specifies a list of HLA objects, by RPR FOM Entity ID attribute, to filter out (not translate)
- ♦ **multicastSubscription** – specifies a list of IP addresses for the Gateway should subscribe to.

Discovering Objects

In release 4.0, when the Gateway knew about an object, but did not publish it, it prefixed the object ID with an asterisk (*). In release 4.1, the Gateway prefixes objects that it cannot publish with “inc”.

Documentation Updates

Please note the following correction to the printed version of *MÄK Gateway User's Guide* (the PDF version has the correct information):

- Section 1.3 in *MÄK Gateway User's Guide* lists the PDUs supported by the Gateway. The Gateway also supports Logger Control and View Control PDUs. Therefore, the MÄK Logger and MÄK Stealth can be controlled via the Gateway.
- The printed version of *MÄK Gateway 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.
- On page A-2, the last paragraph states that the Gateway loads the *Logger.mtl* file. It should state that the Gateway loads the *gateway.mtl* file.
- *MÄK Gateway User's Guide* does not list the discovery criteria for the EntityTranslator object. To publish an EntityState PDU, the Gateway must receive a valid EntityIdentifier attribute. An EntityIdentifier is valid if it is not 0:0:0.

Bug Fixes

This section describes problems that have been fixed in this release:

- If you used the GUI to disable an interaction translator while the Gateway was translating, the translator did not disable until the Gateway was restarted.
- Aggregate positions became more inaccurate the longer the Gateway ran.
- The minimum heartbeat interval was 5 seconds.
- The Interaction history display on the GUI was alphabetically sorted by time, this resulted in a Gateway performance loss, as well as making it difficult to read.
- The GUI is now much faster.
- The Entity Counters continue to work even with parts of the GUI not displayed.
- The Gateway now spreads the heartbeat PDU output load better. PDUs heartbeat at heartbeatInterval + the time they were created or the time they were last updated. Previously all PDUs that needed a heartbeat were sent at the same time, once every heartbeatInterval seconds.

