



MÄK Gateway 4.2 Release Notes

This release note provides release-specific information for MÄK Gateway Release 4.2.

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System Requirements

This section lists supported platforms and hardware and software requirements.

Platforms Supported

The Gateway Release 4.2 supports:

- ♦ Windows 2000/XP MSVC++ 7.1
- ♦ Red Hat Linux 9.0, Enterprise Workstation 3.0, Enterprise Workstation 4.0, Fedora Core 3.

Software Requirements

The Gateway requires installation of one of the following RTIs:

- ♦ MÄK RTI 2.x
- ♦ DMSO RTI-NG 1.3 v6.

Compiler Compatibility on Windows

MÄK provides versions of product releases that have been compiled with Microsoft Visual C++ 6.0 and 7.1. When you run MÄK products together, for example, the Gateway and the Stealth, we strongly recommend that you run versions compiled with the same compiler. Mixing products compiled with different versions of the compiler can result in program instability.

FLEXlm 9.2

The Gateway requires FLEXlm 9.2. If you have not already updated your FLEXlm directory as part of installing another MÄK product, you must update the license server.



If this is the first time you are installing a MÄK product, just follow the steps for installing license management that are in *MÄK Gateway 4.2 Release Notes*.

To update your *flexlm* directory:

1. If the license server is running, shut it down with *lmdown*.
2. Back up the files in the *flexlm* directory on the license server (*C:\flexlm* on Windows, typically */usr/local/flexlm* on UNIX). (For example, to *flexlm.old*.)
3. Copy all of the files in *gateway/flexlm92* to the *flexlm* directory on the license server.
4. Copy your license files (*.lic* or *.dat*) from the backup directory to the *flexlm* directory.
5. Start the license server.
6. Run the Gateway and verify that it is checking out a license.

FLEXlm is backwards compatible, so you do not have to change your license file, and MÄK applications built with earlier versions of FLEXlm will continue to work with FLEXlm 9.2. If you have any problems or questions, contact MÄK support at support@mak.com.

RPR FOM Support

The Gateway 4.2 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*
- ♦ RPR FOM 2.0 draft 17 – *VR-Link20017.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 4.2 was built against VR-Link 3.9.6 and is compliant with:

- ♦ RPR-FOM 1.0 and a subset of 2.0 (draft 6, 14, and 17)
- ♦ MÄK RTI 2.x
- ♦ DMSO RTI NG 6.

Gateway 4.2 is compatible with applications that use earlier versions of VR-Link if they support versions of the RPR FOM listed above.

DIS only

Gateway 4.2 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 MÄK Gateway has the following new features:

- ♦ The *gateway.mtl* file is now in the *./config* directory instead of the *./bin* directory
- ♦ HLA names are now reserved in HLA 1516
- ♦ Support for clearing interactions
- ♦ Support for removing objects
- ♦ The location of the *gateway.mtl* file is configurable
- ♦ Discovery criteria are now more configurable.

HLA Names are Reserved in HLA 1516

In previous releases, in HLA 1516, the Gateway let the RTI name HLA objects. Now the Gateway tries to reserve the name with the RTI and use that name. You can configure this behavior with the **reserveHlaNames** parameter (default: 1 (on)) in *gateway.mtl*. If performance is affected by HLA name reservations, setting **reserveHlaNames** to 0 may help.

The Location of *gateway.mtl* is Configurable

You can now specify the location of *gateway.mtl*. The Gateway searches for the file as follows:

1. If the **-l** command line option is specified, look in the specified location.
2. If **-l** is not specified, look in the location specified by the **GATEWAY_CONFIG_FILE** environment variable.
3. If neither the **-l** option or **GATEWAY_CONFIG_FILE** is specified, look in the *./config* directory.

Clearing Interactions

You can now clear interactions listed in the interactions tab of the GUI.

- To clear interactions, right-click in the interactions list and selecting Clear Interactions.

Removing Objects

Occasionally, HLA objects no longer in the federation execution are still processed by the Gateway because a `removeObjectInstance` is not received by the Gateway for an object no longer in existence. You can now remove these objects. Removing an object performs a `localDeleteObjectInstance` on the HLA object.

- To delete an object, right-click an HLA object in the GUI and select Remove Object from the popup menu.

Discovery Criteria are More Configurable

By default, the Gateway does not translate certain HLA objects until discovery criteria are met. For example, an entity is not translated until its entity ID is a non-zero value. This is done because various mappings exist in the Gateway between DIS and HLA identifiers. However, there are situations in which IDs and other attributes are not specified. Turning off discovery criteria helps allows you to translate these objects.

You can specify discovery criteria in `./config/discoveryCriteria.mtl` or at runtime in the Discovery Criteria dialog box.

You can set discovery criteria for the following objects:

- ♦ Aggregates
- ♦ Designators
- ♦ Emitter systems
- ♦ Entities
- ♦ Environmental Processes
- ♦ Gridded data
- ♦ IFF
- ♦ Radio Receivers
- ♦ Radio Transmitters

Configuring the Number of Updates to Request

When the Gateway discovers an HLA object, it requests all attributes for that object. If the discovery criteria of the object is not met, the Gateway continues to request updates. You can configure how many times the Gateway requests attribute updates with the `numberOfUpdatesToRequest` parameter in `gateway.mtl`. This default number of updates requests is 2.

Documentation Updates

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

Bug Fixes

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

- ♦ View Control PDUs are now translated going from DIS to HLA.
- ♦ The HostRadioIndex field of signal PDUs is now filled in when translating from DIS to HLA, when parseUnknownGlobalIds is enabled and there is no corresponding transmitter.
- ♦ Encoded audio signals are now properly translated in RPR 2.x FOM versions.
- ♦ The HLA name of designators now has "Dgw" appended when created by the Gateway.
- ♦ The TransmitterRadioId of RadioReceivers is now filled in while translating from HLA to DIS.
- ♦ The FrozenBehavior of StopFreeze interactions/PDU's is now properly translated.
- ♦ ModulationParameters are now translated in RadioTransmitters.
- ♦ The CCTT SINCGARS Modulation Parameters of DIS Transmitter PDUs is now translated to the HLA SINCGARSModulationStruct (RPR draft 17) when ModulationType is 6 (CCTT SINCGARS).

Known Problems

The Gateway cannot translate EnvironmentalProcess PDUs generated by VR-Forces.