



Plan View Display 1.4 Release Notes

This release note provides the following release-specific information for MÄK Plan View Display 1.4 and 1.4-ngc:

Supported Systems and System Requirements	2
Network Compatibility	3
RTI Support	3
FOM Support	4
New Features and Changes	5
Documentation Updates	7
Known Problems	7

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Because DMSO RTI 1.3 NG is not link compatible with the previous generation of DMSO RTI releases, we have (for PCs only) released two versions of the Plan View Display – one that works with RTI NG, and one that works with RTI 1.3vx. The default directory for the version that supports RTI NG is *pvd1.4-ngc*. The default directory for the other version is *pvd1.4*.

Supported Systems and System Requirements

Plan View Display 1.4 is being released for the following platforms:

- ♦ SGI IRIX6.5 (Plan View Display 1.4-ngc only)
- ♦ SGI IRIX6.2 or later (Plan View Display 1.4 only)
- ♦ PC with Red Hat Linux 6.0 (Linux 2.2.5)
- ♦ PC with Windows NT 4.0, Windows 95/98/2000.

Platform and Compiler Requirements for Plug-ins

See the table of platforms and compilers in the *VR-Link 3.6 Release Notes*.

System Requirements for PCs

To install the Plan View Display on a PC, you must have a system with the following minimum requirements:

- ♦ Processor: Intel Pentium 133 MHz or equivalent.
- ♦ RAM:
 - 32 MB for DIS exercises
 - 64 MB for HLA federates



Depending on the size of your terrain databases, you may need more RAM.

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- ♦ Hard disk space - Approximately 120 MB. Most of this is for the terrain databases shipped with the Plan View Display. You may need considerably more space depending on the databases you plan to use.
 - ♦ Two or more multiples of the amount of RAM for virtual memory. Running the Plan View Display in HLA may require increased amounts of virtual memory.

System Requirements for UNIX

To install the Plan View Display for UNIX, you must have a system with the following minimum requirements:

- ♦ RAM: 32 MB, 64 MB recommended



Depending on the size of your terrain databases, you may need more RAM.

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- ♦ Hard disk space: Approximately 120 MB. Most of this is for the terrain databases shipped with the Plan View Display. You may need considerably more space depending on the databases you plan to use.

Network Compatibility

HLA only

Plan View Display 1.4 is built against VR-Link 3.6. This change makes the Plan View Display compatible with:

- ♦ RPR-FOM 0.5, 0.7, 0.8, and 1.0
- ♦ MÄK Real-time RTI 1.3.3 and 1.3.3-ngc
- ♦ DMSO RTI 1.3v4 or later, RTI NG v1, v2, v3.0, v3.2.

Plan View Display 1.4 is compatible with applications that use earlier versions of VR-Link if they support versions of the RPR FOM listed above.

DIS only

Plan View Display 1.4 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

The DMSO RTI NG-compatible version of Plan View Display 1.4 comes with a version of the MÄK Real-time RTI 1.3.3 that is link-compatible with DMSO RTI NG (makRti1.3.3-ngc). Plan View Display 1.4-ngc has been tested with DMSO RTI NG v1, v2, v3.0, and v3.2.

The non-NG-compatible version of Plan View Display 1.4 comes with a version of the MÄK Real-time RTI 1.3.3 that is link-compatible with DMSO RTI 1.3 v4 or later (makRti1.3.3). This release has been tested with those DMSO RTI 1.3 releases.

Plan View Display 1.4 may work with older versions of the MÄK Real-time RTI, but we recommend using it with release 1.3.3.

When using the MÄK Real-time RTI, remember to make sure that the Plan View Display 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.

RTI Library Names

Plan View Display 1.4-ngc expects library names that match those of DMSO RTI NG v3.2. If you run Plan View Display 1.4-ngc with DMSO RTI NG v3.2, both the UNIX and PC versions work without any modification. If you want to run Plan View Display 1.4-ngc with DMSO RTI NG v1 or v2, you must make the following changes:

- ♦ For UNIX, you must use the libraries *libRTI-NGv2.so* or *libRTI-NGv1.so*, which are supplied by MÄK in the *.lib* directory. These libraries correspond to DMSO RTI NG v1 and v2. To use Plan View Display 1.4-ngc with RTI NG v1 or v2, copy the appropriate library to the DMSO RTI NG *lib* directory and rename it *libRTI-NG.so*. (You might want to rename the v3.x *libRTI-NG.so* library first.)
- ♦ For PCs, rename the libraries that come with RTI NG v1 or v2 to the names used by the RTI NG v3.2 libraries (*libRTI-NG.lib* and *libfedtime.lib*).

FOM Support

Plan View Display Release 1.4 has built-in support for versions 0.5, 0.7, 0.8, and 1.0 of the RPR FOM. It also supports VR-Link's ability to support alternative FOMs through the FOM Mapper. The default version of the RPR FOM supported by the Plan View Display Release 1.4 is version 1.0.

As described in Chapter 6 of *Plan View Display User's Guide*, you can specify which FOM Mapping code to use with the `-f` startup option, in one of two ways:

```
Pvd -f { v1RPR05 | v1RPR07 | v1RPR08 | v1RPR10 }  
Pvd -f library:init_data
```

If the argument to the `-f` option is one of the `v1RPRxx` keywords, the Plan View Display uses VR-Link's built-in RPR FOM mapper, configured for RPR FOM version 0.5, 0.7, 0.8, or 1.0 as specified by the keyword. For example:

```
Pvd -f vrlRPR05
```

This command instructs the Plan View Display to use the built-in RPR FOM Mapper, configured for RPR FOM version 0.5.

Specifying A FED File that is Appropriate for the FOM Mapper

If you do not use the default version of the RPR FOM with the default FED file, you must specify the one you want to use. The Plan View Display comes with the following FED files:

- ♦ *VR-Link.fed*, based on RPR FOM 1.0 (default FED file and RPR FOM version)
- ♦ *VR-Link08.fed*, based on RPR FOM 0.8
- ♦ *VR-Link07.fed*, based on RPR FOM 0.7
- ♦ *VR-Link05.fed*, based on RPR FOM 0.5

The following example instructs the Plan View Display to use the RPR FOM 0.5 FOM Mapping code (`-f v1RPR05`), and also instructs it to use the *VR-Link05.fed* file (`-x VR-Link05`).

```
Pvd -f vrlRPR05 -x VR-Link05
```

New Features and Changes

This release of the Plan View Display has the following new features:

- ♦ The Invert Selection and Deselect All commands have moved from the Entities menu to the Edit menu.
- ♦ You can select the coordinate system used to display location information in the information bar.
- ♦ You can specify that the grid lines in the display use UTM coordinates.
- ♦ The Group List in the Entity List dialog box has a new default group - Plan View Track, which highlights the entities being tracked.
- ♦ Improved MÄK terrain format (GDB).
- ♦ Ability to automatically respond to HLA synchronization points.
- ♦ New options for the tdbtool.
- ♦ Greater flexibility for plug-ins.

Selecting A Coordinate System for the Information Bar

You can select the coordinate system used to display location information in the information bar. Choose a coordinate system from the Coordinate System list on the information bar.

Specifying Grid Lines in True UTM

You can specify that the grid lines in the display use true UTM coordinates rather than database coordinates. To specify UTM, select the UTM option on the Display tab of the Settings dialog box.

Synchronization Points

The HLA version of the Plan View Display will automatically respond when a synchronization point is announced to it by the RTI. The Plan View Display will immediately indicate that it has achieved the synchronization point, so that it will not hold up the federation execution.

New Command Options for the tdbtool

The tdbtool has the following command-line options:

-t

When run with the -t option, the tdbtool converts three-sided polygon objects into triangle objects (an internal detail), which saves some space and run time.

-r x

The -r x option consolidates vertices within x meters and uses this vertex by reference. For example, you can use -r 0.0001 to just consolidate repeated vertices. This in some cases can reduce the file and memory size by 50% or so with no practical loss in fidelity. It only works with files that were originally in FLT format.

Improved MÄK Terrain Format

Plan View Display 1.4 implements an improved version of the MÄK Terrain Format (GDB). The update format makes the processing of queries relating to the terrain more efficient, so that the terrain libraries can support larger simulations. It also, makes the representation of the terrain richer by providing additional structures, and modifying existing ones, to capture more data for reasoning about the terrain in realistic simulations. The Plan View Display is backward compatible with databases created under the earlier format.

The changes and enhancements include:

- The database format is faster and more efficient.
- It supports a wider array of soil types, including all of the ones represented in CTDB databases.
- The representation of cultural features (such as, buildings and trees) is now more detailed.
- Features that are not a part of the terrain, but yet require a description of location and geometry for terrain reasoning purposes, such as impassable terrain, a body of water, or a minefield, are represented as terrain features. However, these features are not used by the Plan View Display.

Greater Flexibility for Plan View Display Plug-Ins

Previous versions of the Plan View Display plug-in API allowed you to work only with entities, fire interactions, and detonate interactions in DIS. You were also restricted to using the classes contained in a *DtSimpleRprFomMapper* in HLA. Now you can do anything with the *DtExerciseConn* in the plug-in API that you can do using VR-Link.

Documentation Updates

License Key URL

The URL listed on page 2-14, step 3 of the license key procedure, is incorrect. The correct URL is www.mak.com/licenses.htm.

Known Problems

This section lists problems that we have identified, but which do not interfere with your use of the Plan View Display:

- ♦ The information bar at the bottom of the canvas does not always display correct text about selected menu items.
- ♦ The Plan View Display may display the following message:

`Cannot allocate exact pen/brush color.`

To eliminate this message, try increasing the color depth of the display.

To disable this message, run the Plan View Display with a lower notification level. Notification levels are described in Section 6.1 “Startup Options” in *Plan View Display User’s Guide*.

- ♦ Platforms other than Windows NT may not correctly load the *world-hi.map* file. Use the *world-lo.map* file instead.

