



VR-Vantage 1.5 Release Notes

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Systems Supported and System Requirements

This section describes platform support and system requirements for VR-Vantage. For the most up-to-date information about systems supported, see the Product Versions page on the MÄK web site at: <http://www.mak.com/support/productversions.php>.

VR-Vantage is available for the following operating systems:

Table 1: Platforms supported

Operating System	Compiler
Windows XP Windows Vista Windows 7	Microsoft Visual C + + 8.0, 10.0 (64 bit)
Red Hat Enterprise Linux 5.0. (32 bit libraries)	default compiler

Third Party Library Support

VR-Vantage uses the indicated versions of the following libraries:

- ♦ VR-Link 4.0.5
- ♦ Qt 4.7.4
- ♦ OpenSceneGraph 3.0.1
- ♦ Boost 1.45
- ♦ FreeGlut 2.4.0
- ♦ GL-Studio 4.2.3
- ♦ DI-Guy 11.0.3.

MÄK will provide modified source code for OSG and osgEarth upon request, as per the OSGPL license. Please contact support@mak.com for download links.

VR-Vantage for Windows

VR-Vantage for Windows requires the following:

- ♦ A Pentium-class PC (or higher) with minimum 2 GHz processor
- ♦ An OpenGL 2.0-compliant graphics card with 256 MB or more of memory.
- ♦ Windows XP SP2, Windows Vista, or Windows 7.
- ♦ 10 GB of disk space.
- ♦ 1 GB of RAM; more is desirable depending on the size of the terrain database and the number of models to be loaded.

3D Video Cards Supported

VR-Vantage 1.5 supports NVIDIA graphics cards that support OpenGL 2.0. VR-Vantage does not support AMD (formerly ATI) graphics hardware.



You should always try to use the latest drivers available for your video board.

Compiler Compatibility on Windows

MÄK provides versions of product releases that have been compiled with Microsoft Visual C++ 7.1, 8.0, 9.0, and 10.0 (some products are not available on all compilers). When you run MÄK products together, for example, the Logger and a VR-Vantage application, we strongly recommend that you run versions compiled with the same compiler. Mixing products compiled with different versions of the compiler on the same computer can result in program instability.

FLEXIm Support

VR-Vantage 1.5 uses FLEXIm 11.8.

VR-Vantage 32-bit Does Not Support Some Large Terrain Databases

The 32-bit versions of VR-Vantage cannot support large terrain databases whose use results in exceeding the memory capabilities of 32-bit applications and operating systems. For example, the 32-bit versions of VR-Vantage may have problems displaying scenarios that use the *VR-TheWorld Online - MAK Earth.mtf* terrain, which has a highly detailed terrain of Honolulu, Hawaii.

Using MÄK Products on Virtual Machines

In general, MÄK products run on virtual machines without any problems. The exception to this statement is that applications that use 3D graphics, such as VR-Vantage and the VR-Forces front-end, may not work properly. This is due to lack of support for NVIDIA drivers by virtual machines. We continue to investigate ways to resolve this problem.

Network Compatibility

HLA only

VR-Vantage 1.5 is compliant with:

- ♦ RPR-FOM 0.5, 0.7, 0.8, 1.0, and a subset of 2.0 (draft 6, 14, and 17)
- ♦ MÄK RTI 2.x, 3.x, 4.x
- ♦ Pitch RTI 1.3 C++ interface.

Other RTIs that support the HLA 1.3 specification, the SISO DLC HLA API 1516 version of the IEEE 1516 specification (SISO-STD-004.1-2004), and HLA Evolved. To use an RTI with VR-Vantage it must use the same operating system and be built with the same compiler.

DIS only

VR-Vantage 1.5 supports DIS 4, 5, and 6, and can therefore interoperate with DIS applications of any of these versions.

FOM Support

VR-Vantage 1.5 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, VR-Vantage 1.5 uses RPR FOM 1.0.

If you want to use VR-Vantage with VR-Forces 3.9 or later and RPR FOM version 2, draft 17, use the *VR-Link20017-1.fed* file.

Backwards Compatibility

VR-Vantage 1.5 applications and some files are not backwards compatible. Specific incompatibilities are as follows:

- ♦ Applications from a given release cannot control display engines from a different release. (In other words, a VR-Vantage 1.5 application cannot control a VR-Vantage 1.4 display engine.)
- ♦ Plug-ins built against one version cannot be used with the other.
- ♦ Model files (MEDF and MEIF) built with one version do not work with the other.

New Features and Product Updates

VR-Vantage 1.5 has the following changes and new features:

- ♦ Enhanced VR-Vantage Stealth. The VR-Vantage XR application is no longer part of the VR-Vantage product. The Plan View and XR features that distinguished VR-Vantage XR are now part of the VR-Vantage Stealth application.
- ♦ Sensors. Sensor support displays the 3D scene as if it were viewed through night-vision goggles (NVG) or infrared (IR). Unlike the Sensor FX plug-in, this feature does not require classification of the terrain and materials. For details, please see Chapter 14, [Using Sensors](#), in *VR-Vantage Users Guide*.
- ♦ Display of smoke effects. For details, please see [Section 10.7, "Displaying Tactical Smoke"](#), in *VR-Vantage Users Guide*.
- ♦ Audio. VR-Vantage can play wave files that are mapped to entity types. For details, please see Chapter 15, [Sound Effects](#), in *VR-Vantage Users Guide*.
- ♦ Configurable track histories. You can now specify the number of segments to display for a track history and how long the segments should remain in the display. For details, please see [Section 10.4.1, "Configuring Track Histories"](#), in *VR-Vantage Users Guide*.
- ♦ Streaming video (Windows only). VR-Vantage can export a video stream of the display window. For details, please see Chapter 16, [Using Streaming Video](#), in *VR-Vantage Users Guide*.

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The streaming video feature uses GStreamer, a complex third-party SDK. If our implementation does not meet your needs for video streaming, please contact MÄK support. We will work with you to help you achieve your goals.

- ♦ Display of communications lines and squawk lines. For details, please see [Section 10.9, "Displaying Radio Communications Lines"](#), in *VR-Vantage Users Guide*.
- ♦ Support for specifying the background color, text color, and shadowing for 2D labels. For details, please see [Section 9.2.5, "Configuring Shadowing and Background Color for 2D Labels"](#), in *VR-Vantage Users Guide*.
- ♦ Display of range and bearing labels for intervisibility lines. For details, please see [Section 12.8, "Displaying Intervisibility Line Information"](#), in *VR-Vantage Users Guide*.
- ♦ Support for cutting high resolution terrain into terrains served by osgEarth terrain servers. For details, please see [Section 5.5.4, "Cutting in Sites for a Terrain Server"](#), in *VR-Vantage Configuration Guide*.



YOU MUST INSTALL THE VR-VANTAGE DATA PACKAGE.

It is not optional. It contains data that is required by VR-Vantage applications.

Documentation Updates

VR-Vantage Users Guide has been updated. A new manual, *VR-Vantage Configuration Guide* has been added. This manual covers model definitions, model mapping, terrain composition and other subjects that typically are not referred to while a user is viewing a simulation. Most of the chapters in *VR-Vantage Configuration Guide* were formerly in *VR-Vantage Users Guide*. The PDF version of *VR-Vantage Developers Guide* is no longer distributed. It is now part of the HTML API documentation.

In previous releases, VR-Forces documentation has referred to the display of electromagnetic emissions as “sensor volumes”. This terminology was incorrect. This display is now called an emitter volume.

Fixed Bugs

VR-Vantage 1.5 fixes the following problems that were present in previous releases:

- ♦ When VR-Vantage displayed an aggregate generated by VR-Forces and VR-Forces changed the aggregate to the aggregated state, VR-Vantage did not properly update the display of entities. 48017
- ♦ Under some circumstances, orientation was not dead reckoned. 47943
- ♦ When HAT lines were on in the 3D view, altitude was displayed for icons in a 2D view. It should not have been displayed. 47200
- ♦ HAT labels did not show a minus sign when altitudes were negative. 48302
- ♦ It was not possible to set the DIS timeout. 48724
- ♦ Entities that did not have marking text showed up as an empty slot on the Objects List panel. 47960

Known Problems and Product Restrictions

VR-Vantage has the following known problems:

- ♦ VR-Vantage may crash on exit on Linux if your Linux installation is not at the latest version of *libsdlmixer* (as of the date of this release).
- ♦ The Linux version of VR-Vantage crashes intermittently when connecting to or disconnecting from a running exercise. 47690
- ♦ Some strings in the graphical user interface are not included in the translation files. 47806
- ♦ The exampleExtendDialogByAddition and exampleExtendDialogBy Deriving examples do not work in Linux. 47639, 47638
- ♦ The tutorialDistributedSimulations tutorials do not work in Linux. 47644
- ♦ The TerraSimSampleUrbanMetaFlight terrain is not initially visible when loaded in VR-Vantage PVD or in PVD mode in VR-Vantage XR. To see the terrain, press **e** to zoom in. This problem potentially exists for all paged terrains whose page-in distance is less than the default observer distance in PVD mode.
- ♦ If you install VR-Vantage and view online help, then reinstall VR-Vantage and try to view online help again, no content is displayed in the help viewer. To work around this problem, delete the help cache directory. On Windows XP, it is C:\Documents and Settings\<user>\Local Settings\Application Data\MAK\VR-VANTAGE1.4.1. On Windows Vista and Windows 7, it is C:\Users\<user>\AppData\Local\MAK\VR-VANTAGE1.4.1. On Linux, it is /home/vrv/.local/share/data/MAK/VR-VANTAGE1.4.1. 47721
- ♦ You cannot connect to a remote display engine running on Linux from a VR-Vantage application running on Windows. 45176
- ♦ Changing the hierarchy of raster map layers may cause a crash in VR-Vantage Stealth or VR-Vantage FreeView. 44498
- ♦ If a graphics card does not support shaders, you may receive the following error message when you load a terrain that uses them:
`Shader [Branches] validation failed`

To work around this problem, set the SpeedTree Performance Profile to Disabled, as follows:

- a. Choose **Settings** → **Display**. The Display Settings dialog box opens.
- b. Select the SpeedTree Settings page.
- c. In the Performance Profile drop-down list, select Disabled.

