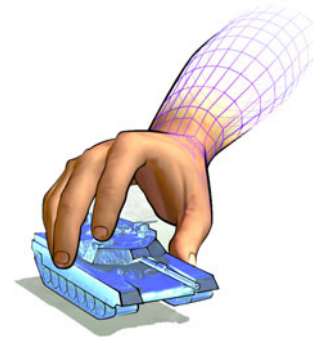




VR-Forces 3D Front End 1.0 Release Notes

This release note contains the following release-specific information for VR-Forces 3D Front End Release 1.0:

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Systems Supported

VR-Forces 3D Front End 1.0 is compatible with VR-Forces 3.11 only. You cannot run it with previous versions of VR-Forces, nor will you be able to run it with any future VR-Forces maintenance releases or feature releases (which will have their own compatible versions of the 3D Front End).

A VR-Forces license includes the ability to run one front-end, either the 2D front-end or the 3D Front End. If you want to run both at the same time, you must purchase additional front-end licenses.

XR mode is licensed separately from VR-Forces. Please contact your MÄK salesperson for information about obtaining a license for XR mode.

Unless otherwise stated in this document, all of the system and compatibility information in *VR-Forces Release Notes* applies to the VR-Forces 3D Front End.

Vega Prime Compatibility

The 3D display is based on Presagis Vega Prime 2.2. If you have a previous version of Vega Prime in your path, the 3D Front End might not be able to load. The solution is to remove the path to the older version of Vega Prime from your path.

Installing the VR-Forces 3D Front End

The 3D Front End is installed separately from the base VR-Forces. It does not provide a complete VR-Forces installation. It installs files specific to the 3D Front End into the existing VR-Forces installation directory. These files include the executable file and required DLLs, configuration files, and 3D terrain databases.



You must install the 3D Front End into an existing VR-Forces directory that contains the version of VR-Forces for which the 3D Front End was built.

To install the 3D Front End:

1. Install VR-Forces. Follow the procedures in Chapter 2, *Installing VR-Forces*, in *VR-Forces User's Guide*.
2. Run the installer for the 3D Front End. Use the appropriate procedure from Chapter 2, *Installing VR-Forces*, in *VR-Forces User's Guide* for your platform.

In Windows, the installation wizard automatically chooses the default installation directory for the appropriate version of VR-Forces. If you installed VR-Forces to a different directory, change the installation directory in the 3D Front End installation wizard.



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- ♦ On Windows, when the installation wizard notifies you that the installation directory already exists and asks if you want to install into this directory, click Yes.
 - ♦ On Linux, you must install the 3D Front End from the same directory from which you installed VR-Forces. For example if you installed VR-Forces from `/usr/local/mak`, you must install the 3D Front End from `/usr/local/mak`.
-

New Features and Updates

VR-Forces 3D Front End 1.0 is a new front-end for VR-Forces. It embeds the MÄK Stealth 3D viewer in VR-Forces. All of the features for scenario creation, entity and object creation, and entity planning are available, as is the B-HAVE Module for VR-Forces. The 3D Front End supports the VR-Forces APIs and plug-in architecture. It also supports Stealth APIs.

Forwards Compatibility of Scenarios

Scenarios created in previous versions of VR-Forces should work in the VR-Forces 3D Front End to the same extent that they work in the VR-Forces 3.11 2D front-end. However, if an older scenario specifies a GDB file as the database for the front-end, rather than an MTD file, the 3D Front End will load the GDB database, which does not have the texture data that a typical 3D terrain has. You can take the following approaches to updating the scenario to work in the 3D Front End:

- ♦ Open the scenario in VR-Forces 3.11, then save it. Open the scenario file in a text editor. Change the **Gui-Terrain-Database** parameter to point to an MTD file instead of a GDB file. Open the MTD file in the TDB Tool and specify an appropriate 3D terrain in the 3DTerrainMetafileRecord attribute. The scenario will now be portable between the two front-ends.
- ♦ Open the scenario in VR-Forces 3.11, then save it as something like *scenarioName_2D*. Then save it as *scenarioName_3D*. Open *scenarioName_3D.scn* in a text editor. Specify a 3D terrain for the **Gui-Terrain-Database** parameter. When you load the scenario, choose the correct version for the front-end you are using.

Unsupported VR-Forces API Examples

The following API examples do not work with the 3D Front End. This is because they depend on features that are not supported.

- ♦ filterMenu
- ♦ minefield
- ♦ guiCoordinateSystem
- ♦ fuelDepot.

Unsupported Terrain Databases

The 3D Front End does not support geodetic terrain databases. Therefore, the *world.mtd* and *worldNoElevation.mtd* terrain databases are not supported.

Support for B-HAVE Sample Scenarios

The following B-HAVE Module for VR-Forces example scenarios use the TerraSim_SampleUrban_Metaflight terrain database. Therefore the issues discussed in [Section 3.2.4, "Loading MetaFlight Databases"](#), in *VR-Forces 3D Front End User's Guide* apply to running them.

- ♦ Scatter
- ♦ InteriorMovement
- ♦ Crowd.

Documentation Updates

VR-Forces 3D Front End features that are different from those in the 2D front-end are documented primarily in *VR-Forces 3D Front End User's Guide*. Configuration of the 3D Front End and model mapping is documented in *VR-Forces Configuration Guide*.

Some of the default vehicle models illustrated in [Section 12.5, "Models Supplied with the 3D Front End"](#), in *VR-Forces Configuration Guide* have been replaced with new models.

The 3D Front End has an additional configuration parameter that is not documented in *VR-Forces Configuration Guide*. `isectorUpdateOrientationThreshold` specifies the distance, in degrees, an entity needs to rotate before recalculating its ground clamped elevation and orientation. Either `isectorUpdateOrientationThreshold` or `isectorUpdateThreshold` needs to be exceeded to get an update, not both.

The following configuration parameters, which are documented in *VR-Forces Configuration Guide*, are no longer supported:

- ♦ `maxNumberOfTrailModels`
- ♦ `maxNumberOfEntityLabels`
- ♦ `labelStyle`.

The `notifyLevel` parameter, described in *VR-Forces Configuration Guide*, is incorrect. The correct name of the parameter is `DtNotifyLevel`.

The following parameters, which are documented in *VR-Forces Configuration Guide* as being in *params.mtl*, are now in *netConnectPars.mtl*:

- ♦ HLA:
 - `execName`
 - `fedFileName`
 - `fomMapperInitData`
 - `fomMapperLib`
 - `rprFomVersion`

- ♦ DIS:
 - destAddrString
 - disPort
 - disVersion
 - exerciseld
 - mcastTtl
 - recvBufferSize
 - sendBufferSize
 - useAbsoluteTimeStamps
 - useAsyncIO.

VR-Forces 3D Front End User's Guide and the 3D Front End online help is missing the following section, which describes how to configure the display of aggregate entities in the 3D Front End.

Viewing Aggregate Entities

You can display or hide aggregate graphics. If you hide the aggregate enclosure and icon, the individual members of the aggregate are still displayed.

- To display or hide aggregate symbols, choose Options → Aggregates, or press the **a** key.

Setting Options for Displaying Aggregates

The Entities and Aggregates tab on the Objects tab on the Preferences dialog box lets you control the display of aggregates by specifying the following:

- ♦ Display Level – The top hierarchical level that is displayed.
- ♦ Highest Only – Display only those aggregates that are rooted at the highest level.

The following sections explain these options. [Figure 1](#) is the basis for the explanations. Each aggregate is enclosed in a box, as if this were a VR-Forces 3D Front End display.

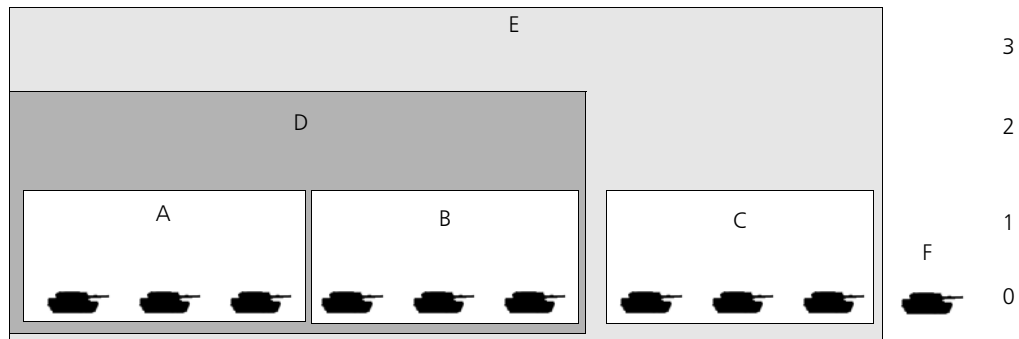


Figure 1. Aggregate hierarchy

Setting the Highest Level of Display for Aggregates

Figure 1 has four levels (0-3). The Highest Level control determines the highest level of aggregation that is displayed. If you specify 3, all the aggregates in Figure 1 are displayed. If you specify 1, only aggregates A, B, and C are displayed (Figure 2). Aggregates D and E are still part of the exercise, but are not displayed.

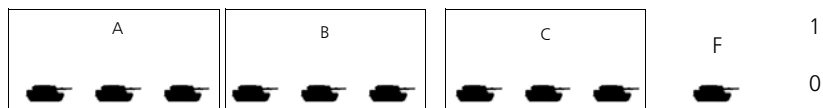


Figure 2. Highest Level set to 1

To set options for the display of aggregate entities:

1. Choose Options → Preferences. The Preferences dialog box opens.
2. On the Objects tab, select the Entities and Aggregates tab.
3. In the Aggregates group box, change the value in the Display Level box.

Displaying Only the Highest Level Aggregates

If you specify Highest Only, the VR-Forces 3D Front End displays only those aggregates whose root is at the highest level. For example, in [Figure 3](#), if Highest Level is 3, setting Highest Only would cause the VR-Forces 3D Front End to display aggregate E. If the Highest Level is 2, only aggregate D is displayed ([Figure 4](#)). Aggregate C, although part of an aggregate that is at Level 3, is not displayed, because its root is not at Level 2.

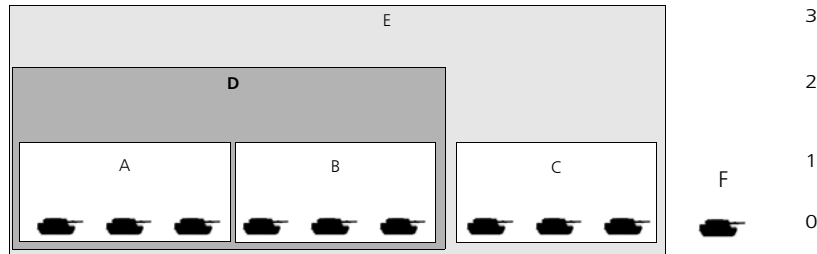


Figure 3. Highest Only when Highest Level is 3

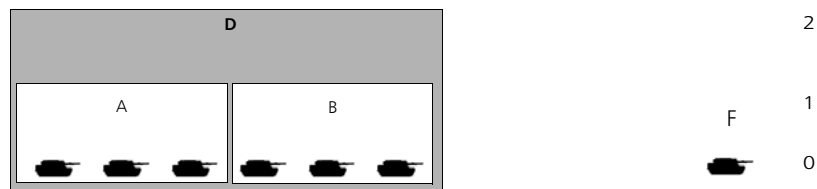


Figure 4. Highest Only when Highest Level is 2

To set options for the display of aggregate entities:

1. Choose Options → Preferences. The Preferences dialog box opens.
2. On the Objects tab, select the Entities and Aggregates tab.
3. In the Aggregates group box, select the Display Highest Only check box.

Configuring Aggregate Enclosures and Icons

You can configure the colors used for aggregate enclosures and the icons associated with them.

- To specify the colors for aggregate enclosures, edit the `forceFriendlyAggregateColor`, `forceOpposingAggregateColor`, and `forceNeutralAggregateColor` parameters in *params.mtl*.
- To specify the icons used for aggregates, edit *aggregateMap.mtl*.

Known Problems

VR-Forces 3D Front End Release 1.0 has the following known problems:

- ♦ The breach and takeoffandlanding scenarios shipped with VR-Forces do not load a 3D database in the 3D Front End. This is because they specify a GDB file in the scenario file, not an MTD file. To load these scenarios, open the scenario files in a text editor and change the Terrain-Database and GUI-Terrain-Database entries to *monterey.mtd* instead of *monterey.gdb*.
- ♦ At times, the 3D Front End does not recognize that a special key such as Ctrl or Alt has been released and it may remain in a special mode when you think you are in regular mouse mode. If this occurs, place the mouse cursor in the 3D window and press the Shift, Ctrl, and Alt keys to see if the mode changes.
- ♦ The Open Database file filter includes a filter for MÄK Terrain Project (MTP) files. However, the 3D Front End cannot load MTP files.
- ♦ Some related topics links in the 3D Front End online help link to topics that describe features that are not supported in the 3D Front End.
- ♦ The Linux version of the 3D Front End crashes on exit.

Usage of the Alt Key Under Linux with the Gnome Window Manager

By default, the Gnome window manager on Linux uses the Alt key as a modifier that lets you move a window by clicking and dragging anywhere on the window (as opposed to only being able to use the title bar). This default behavior prevents you from using the Alt key to set an entity's altitude in the 3D Front End.

To set the altitude of entities in advanced creation mode either use the mouse wheel or change the behavior of the Alt key.

To change the Gnome setting:

1. Choose Applications → Preferences → Window.
2. Change the "Movement Key" setting to "Super (or Windows Logo)". It is not recommended to change this setting to "Control" because that will also interfere with advanced creation mode.

