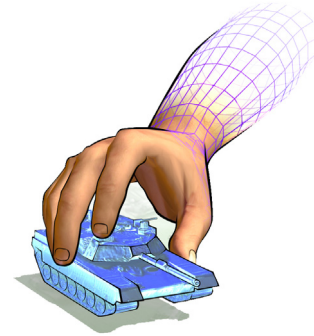




B-HAVE Module 1.4 Release Notes

This release note contains the following release-specific information for B-HAVE Module Release 1.4 for VR-Forces 3.12:

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Systems Supported

B-HAVE Module 1.4 for VR-Forces 3.12 is available for:

- ♦ Windows XP MSVC++ 7.1, 8.0, 9.1
- ♦ Windows Vista MSVC++ 8.0, 9.1
- ♦ Red Hat Enterprise Workstation Linux 4 and 5.

For complete system requirements, please see *VR-Forces 3.12 Release Notes*.

MÄK Product Compatibility

The B-HAVE Module is compatible only with the version of VR-Forces for which it was built. It has the same compatibility with simulation protocols and versions and third party libraries as the version of VR-Forces for which it was built.

FLEXIm Support

The B-HAVE Module uses FLEXIm 11.6. You must obtain and install a license file for the B-HAVE Module in addition to your VR-Forces license file.

New Features and Updates

The B-HAVE Module 1.4 has the following changes:

- ♦ Support for the VR-Forces 3D Front End
- ♦ The Stealth and VR-Forces 3D Front End plug-in for visualizing entity path segments is no longer supported.
- ♦ A B-HAVE translation file (*bhaveGui_untranslated.ts*) is now included.
- ♦ VR-Forces includes a new terrain database, *LittlePondInset.mtd*. PathData for this terrain is included in the B-HAVE installer.
- ♦ A new scenario, QualNet CarBomb, has been added.
- ♦ VR-Village path data has been updated.
- ♦ VC9 is supported for the 2D front-end.
- ♦ Lua scripting capabilities have been improved. See documentation updates.
- ♦ The Create Multiple Entities feature is not available in the 3D Front End.
- ♦ The *Bhave.sms* file is no longer needed and therefore is no longer shipped.

Documentation Updates

B-HAVE Module for VR-Forces Users Guide has been updated for this release. The following lua functions were not included in *B-HAVE Module for VR-Forces Users Guide*:

Function:	AIVRFIsEmbarkedOn(string name vrfObject* entity, [string parentName])
Input parameters:	Entity name or object pointer; parent object.
Output:	Returns 1 if the entity meets the condition, 0 if it does not.
Description:	Tells whether an entity with the given name or vrfObject pointer is embarked. Use the optional parentName argument to determine whether the given entity is embarked inside parentName.
Function:	AIVRFIsDestroyed(string name vrfObject* entity)
Input parameters:	Entity name or object pointer.
Output:	Returns 1 if the entity meets the condition, 0 if it does not.
Description:	Tells whether an entity given with the given name or vrfObject pointer is destroyed. Use the AIEntityGetVrfObject to get the vrfObject representation of a given entity.
Function:	AIVRFIsTasked(string name vrfObject* entity)
Input parameters:	Entity name or object pointer.
Output:	Returns 1 if the entity meets the condition, 0 if it does not.
Description:	Tells whether an entity given with the given name or vrfObject pointer is currently executing a VR-Forces Task.
Function:	vrfObject* AIEntityGetVrfObject(string name)
Input parameters:	Entity name.
Output:	Returns the vrfObject* representation of an entity with name 'name'.
Description:	Provides the vrfObject pointer for an entity to be used as input to other functions.
Function:	AIUtilInfo(string)
Input parameters:	Message to be written.
Output:	None.
Description:	Writes a message to the B-HAVE output when the notification level is set to Info.
Function:	AIUtilVerbose(string)
Input parameters:	Message to be written.
Output:	None.
Description:	Writes a message to the B-HAVE output when the notification level is set to Verbose.

Function:	AIUtilWarn(string)
Input parameters:	Message to be written.
Output:	None.
Description:	Writes a message to the B-HAVE output when the notification level is set to Warn.
Function:	AIUtilError(string)
Input parameters:	Message to be written.
Output:	None.
Description:	Writes a message to the B-HAVE output when the notification level is set to Error.

One Way Roads

The B-HAVE Module can support one-way roads. To support one-way roads, the road features in the GDB terrain must have a DtDirectionality attribute defined and set to 1 (unidirectional). If the attribute is not present, the road is assumed to be bidirectional.

Bug Fixes

The following problems have been fixed in this release:

- ♦ Malformed Lua scripts caused the simulation to crash. Entities with malformed Lua scripts will print a warning message in their output console.
- ♦ VR-Forces no longer crashes when you OK the Create Multiple Entities dialog box without specifying the entity type.
- ♦ Vehicles could not embark on an LCAC using a BHAVE movement task.
- ♦ The Lua function AIUtilDebug was incorrectly documented in *B-HAVE Module for VR-Forces Users Guide* as AIUtilDebugMessage. It was also incorrectly used in several example scripts.

Known Problems

B-HAVE Module Release 1.4 has the following known problems:

- ♦ PathData cannot be generated on geocentric or geodetic terrain databases, so most functions of the B-HAVE Module will not work on these databases.
- ♦ Civilian lifeforms are not configured by default to spot other civilians, only armed entities. This is done for performance reasons, but can be changed in the OPE files. Edit the visual-sensor detection-types parameter to change what types of entities are spotted.

- ♦ The `AIEntitySetSpeed()` Lua function and the VR-Forces Set Ordered Speed command set the same parameter of an entity, so Lua scripts that call `AIEntitySetSpeed()` every tick will override any ordered speed set from the GUI or plan.
- ♦ Lua scripts over a particular length cannot be edited through the VR-Forces GUI. If you have a problem editing a script through the GUI, you can open it directly in a text editor.
- ♦ Obstacles will sometimes be ignored if their perimeter is too big.
- ♦ Using the default dead-reckoning thresholds, vehicles in traffic appear to move too much when stopping or starting. To reduce this effect, you can adjust the Performance/Quality setting in the Performance Options dialog box.
- ♦ Vehicle traffic entities driving on roads do not drive correctly when the road network has intersections that are too close together. Too many vehicle traffic entities in too small of an area can cause the traffic to become locked, and entities to stop moving.
- ♦ The `AISetDrawPathData` Lua function is not supported for this release.

