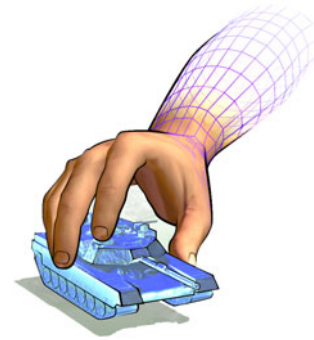




B-HAVE Module for VR-Forces 1.1.1 Release Notes

This release note contains the following release-specific information for B-HAVE Module for VR-Forces Release 1.1.1 for VR-Forces 3.10.1:

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Document ID: BHV-1.1.1-2-070920

Systems Supported

B-HAVE Module for VR-Forces 1.1.1 for VR-Forces 3.10.1 is available for Windows 2000 and XP, MSVC++ 7.1 and 8.0.

Disk Space Requirements

A full installation of B-HAVE Module requires approximately 138 MB of disk space.

MÄK Product Compatibility

The B-HAVE Module for VR-Forces 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 for VR-Forces uses FLEXIm 10.8. 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 for VR-Forces 1.1.1 has the following new features:

- Some driving improvements, which mostly affect following and convoy behaviors.
- Improved collision detection handling.
- Two new Lua functions for Movement mode pathfinding (AISetMovementModePenaltyFactor) and enabling custom Lua library (AIEntityGetVrfObject).

New Lua Functions

The B-HAVE Module has the following new Lua functions:

- AISetMovementModePenaltyFactor(*movement mode string*, *new cost factor*) lets you modify the way entities avoid roads (for 'avoid-roads'), or avoid non-road terrain (for 'prefer-roads'). Default values are 4.0 for 'avoid-roads' and 100.0 for 'prefer-roads'. With higher values, entities try to respect the movement mode more closely. For instance, AISetMovementModePenaltyFactor('prefer-roads', 8.0) makes the entity less respectful of roads and it does not hesitate to make a U-turn in the middle of the road, rather than taking a longer way to respect the road network.

- ♦ `AEntityGetVrfObject(optional_entity_name)` returns a C pointer to a VR-Forces object.
 - If no parameter is given, the VR-Forces object is the one associated with the current entity (that is, the entity executing the script)
 - If a name is given, the VR-Forces object is the one corresponding to that name (ex "Cvln 1"). Such a pointer is useful when developing custom Lua DLLs. Custom C functions can receive this pointer and perform operations on the VR-Forces object.

Documentation Updates

B-HAVE Module for VR-Forces User's Guide has the following errors:

- ♦ In table 5-3, in the output list for `AEntityGetCurrentAgent`, item 7 (shoot) should be removed.
- ♦ In table 5-4, the description for `AIFollowGetDistFromEntity` should be:
Retrieves the desired distance (as set by `AIFollowSetDistFromEntity()`) to the followed entity.

Bug Fixes

The following problems have been fixed in this release:

- ♦ The B-HAVE Module crashed when renaming an entity, then removing it.
- ♦ The B-HAVE Module crashed when drawing pathdata on the first simulation tick.
- ♦ K-turn behavior was incorrect.
- ♦ The B-HAVE Module crashed when loading paged terrain databases. Paged terrains are not supported. However, the B-HAVE Module no longer crashes.
- ♦ Vehicle entities kept avoiding other entities after finishing a B-HAVE Module task. Now, they stop as they are expected to.

Known Problems

B-HAVE Module Release 1.1.1 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.
- ♦ PathData cannot be generated on paged GDB terrains.
- ♦ 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 command 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.
- ♦ Obstacles will sometimes be ignored if their perimeter is too big.
- ♦ In the TDB Tool, when you make changes to a database and then save it to a new terrain descriptor name, the next time you open the descriptor, you will have an empty resources file. This because the changes you made were saved under the original name prior to the Save As operation. To fix this problem, copy the resources files from the previous <terrain name>_PathData directory to the <new terrain name>_PathData directory. You may also want to copy any PathData you have generated before you saved to the new MTD and GDB file.
- ♦ Cultural features are not treated as obstacles for pathfinding. Only very small cultural features are avoided.
- ♦ Lua global tables are not serialized. You must serialize table variables individually to single variables in the AboutToCheckpoint function, and restore them to the table in the PostLoadCheckpoint function.
- ♦ Paged GDB databases are not supported.