

## Vessel Builder 1 – Preliminary Documentation

This is just a brief document to give the users the ability to start to get familiar with the module. Full documentation will be developed together with the final version of the module.

Orbiter Version: 2016 official.

### Module KEYS:

[SPACEBAR] = Open/Close the Editor Dialog

[CTRL]+[SHIFT]+[SPACEBAR] = Activate/DeActivate the FollowMe Tool

[ALT]+[B] = Toggle All Beacons

[CTRL]+[L] = Toggle Next Light Emitter

[CTRL]+[G] = Toggle Grapple Mode

[G] = If in Grapple Mode → Try to Grapple/Release

[CTRL]+[RIGHT ARROW]/[LEFT ARROW] = If in Grapple Mode → choose next/previous attachment

### ANIMATIONS:

[SHIFT] + AnimKey = Start/Stop Animation. If animation cycle type is manual then keeping the buttons pressed will manually operate the animation.

[CTRL]+[SHIFT] + AnimKey = equals to above but making the animation going backward.

[CTRL] + [SPACE] = Activate/Deactivate manual animations mode. For all those animations that are manual and do not have a key set (similar to the Vinka's robotic arm procedure);

[SHIFT]+[LEFT ARROW]/[RIGHT ARROW] = if in manual animation mode choose previous/next animation

[SHIFT] + [UP ARROW]/[DOWN ARROW] = if in manual animation mode operate the animation forward/backward

### Internal Cameras (not VC)

[C] = cycle through the available cameras

### VC positions

[CTRL] + [UP ARROW]/[DOWN ARROW] = cycle through the available VC positions

### FollowMe Tool

The tool can be moved and rotated using the Dialog but I personally prefer to use its keys. TRICK: the speed of the tool is fixed against simulation time, so if you want it to move quicker or slower accelerates or slow down the simulation.

[UP]/[DOWN]/[LEFT]/[RIGHT] arrows = move the tool forward/backward/left/right

[ALT]+[UP]/[DOWN] = move the tool upward/downward

[SHIFT]+ [UP]/[DOWN]/[LEFT]/[RIGHT] = rotate the tool along x and y axis

[SHIFT] + [PGUP]/[PGDWN] = rotate the tool along z axis;

Some more IMPORTANT notes:

- There is an option that gets automatically written in the vessel's CFG file which is called NOEDITOR. If this option is set to true then the dialog control won't open and the vessel will not be modified in sim. Also the automatic backup won't back the configuration since it can not be changed. This is useful so once an addon is finished it can be delivered and end users that are just willing to use it won't trigger accidentally any modification and won't have to deal with backups of the addons.
- In order to create a new vessel: copy the "VB\_Template.cfg" file located in Config/Vessels/VesselBuilder1, renamed as you like. Launch the sim, spawn the empty vessel with the scenario editor... and that's it, start to modify and have fun!
- The whole settings of options are in order, the best is to first finish a section and then proceed to the next one to avoid issues. For example if I link a Variable drag to an animation and then I delete this animation it will be a problem for the module with probable CTD on startup. Safety checks will be introduced in the final version of the module, but anyway to keep things consistent it will be a responsibility of the users.
- Each vessel (for the timebeing) dumps a lot of information in its log file located in Config/Vessels/VesselBuilder1/Logs
- If the NOEDITOR option is false, so the vessel is editable through the Dialog, each time the sim is open an automatic backup of the current file is appended in a txt file located in Config/Vessels/VesselBuilder1 (I will probably add a dedicated folder for this in the final release). Users will find in that file the entire development history of the vessel. The file can be deleted or cleared at will.
- The Current Vessel setup is automatically saved in its CFG file EVERY TIME THE SCENARIO IS SAVED! So in order to keep your modifications just click save for the scenario and you'll have saved the vessel. This also means that once you're done, just close the sim and the vessel will be automatically saved.
- ANIMATIONS: please keep in mind that live testing of animation is delicate. Animation has to return to its default state before any modifications to or its components is done, otherwise it will be compromised. It is also advisable to set the default state of an animation before adding components to it.
- Meshes: it is not yet confirmed but it is possible that the same mesh loaded multiple times with different rotations can cause issues. In order to avoid that if there is a situation where this particular configuration is needed please make copies of the mesh file and give different names to each.
- Group highlighting in the animation component dialog still has some issue, but that's a side issue, the animation works fine. In order to de-highlight the groups just select and deselect a random group in the left column. Highlights are anyway turned off as soon as the dialog is closed.
- If no group is selected and added to an animation component the whole mesh will be animated
- The Dialog I think is quite intuitive so feel free to explore!

DG example keys:

[SHIFT]+[G] = Lower Gear

[CTRL]+[SHIFT]+[G] = Raise Gear

[SHIFT] + [R] = Opens radiators (add CTRL to close)

[SHIFT] + [C] = open retro doors (add CTRL to close)

[SHIFT] + [B] (keep pressed) = Extends speed brakes (add CTRL to retract)

[SHIFT] + [D] = open nose cone (Add CTRL to close)

Cupola Example

[SHIFT]+[K] = open all petals (add CTRL to close)

SSRMSD Example

All manual animations + CTRL G/G to toggle grapple mode/grapple and release.