Delta IV User Manual

Delta IV Launch Vehicles 3.0

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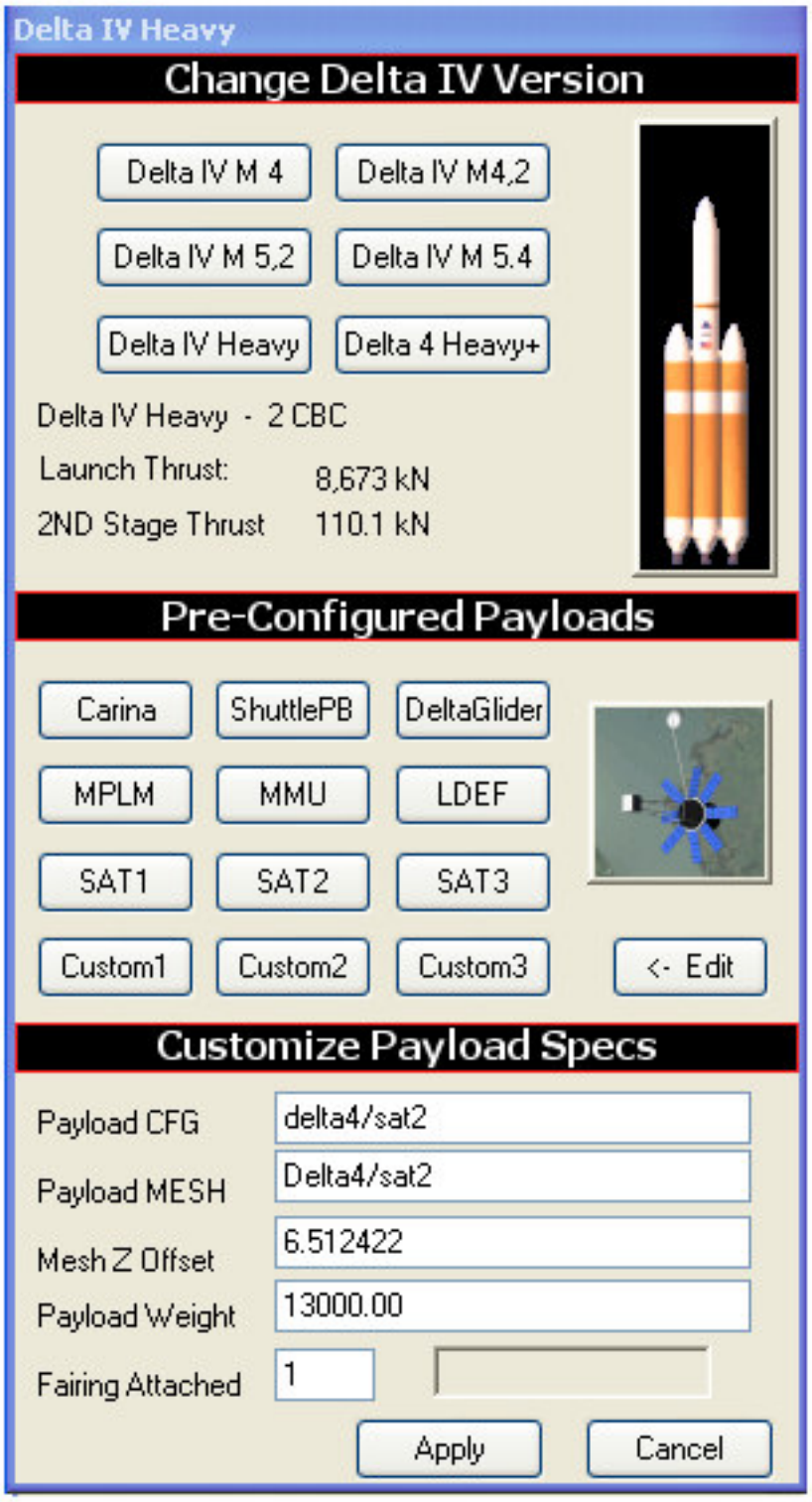
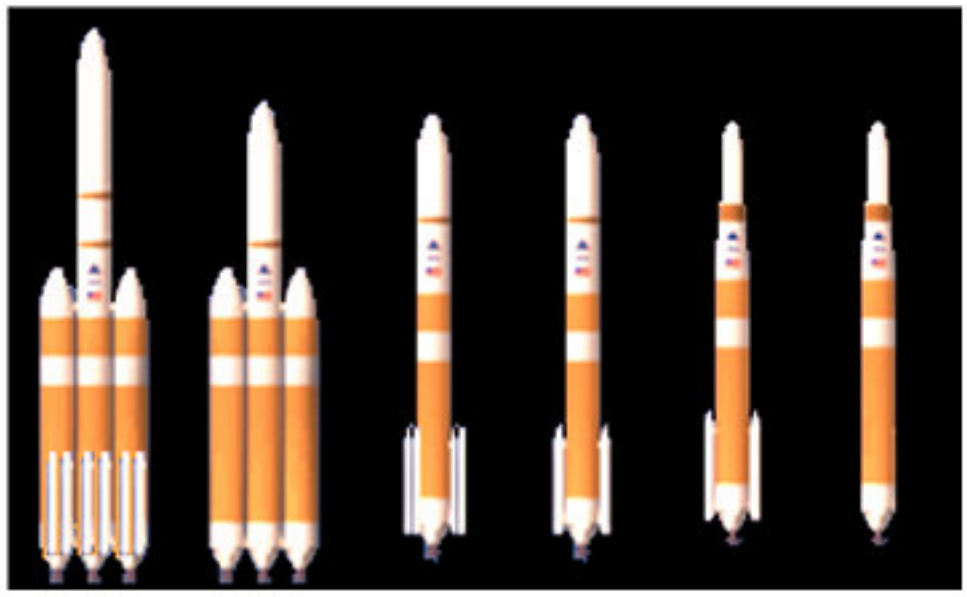
Orbiter Version Compatability: (v.100830)

Main menu key - M

The main menu is accessed by pressing the M key before launch.

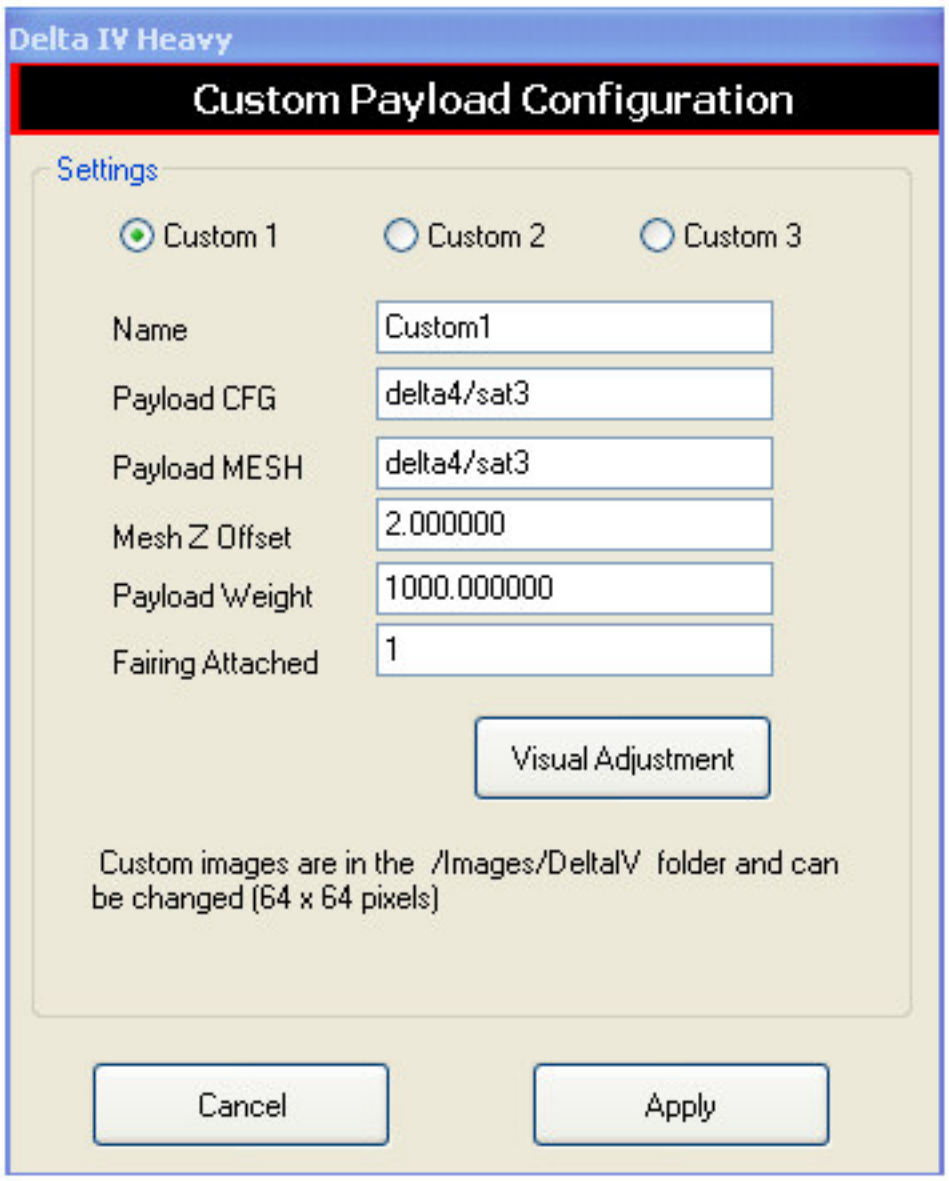
From here you can select the Delta IV version and configure the payload.





You can now edit and save 3 custom payloads.

Each payload must have a config file and a mesh.



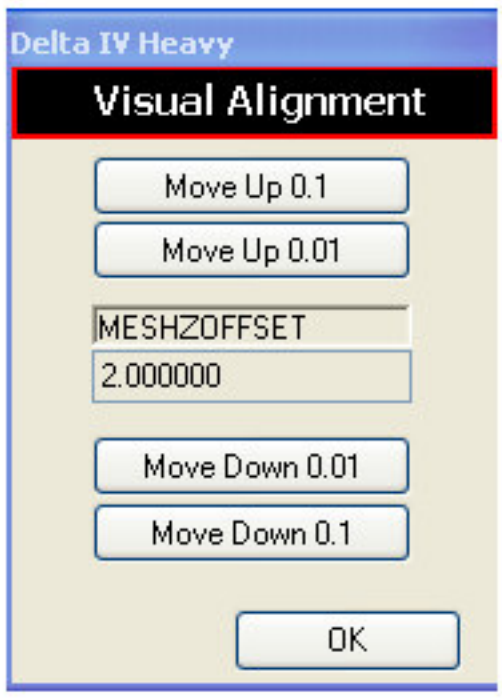
First select which custom button to configure.then select the config and mesh files.

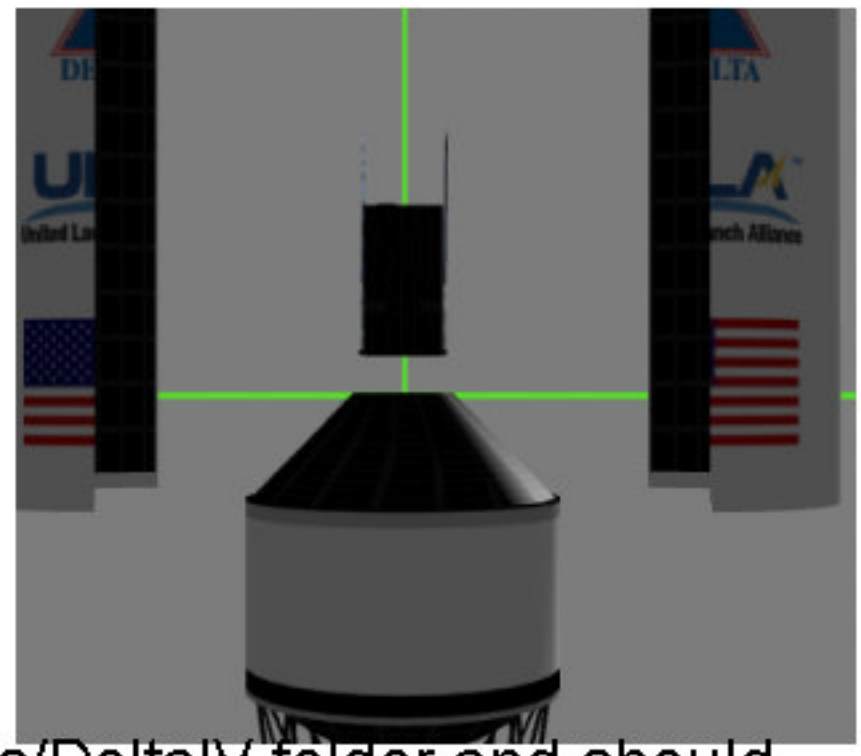
The meshZoffset is the Z position the mesh file will be located.
this can be configured visually by clicking the visual adjustment button.
Payload weight is Kg.
Fairing attached - 1 yes , 0 no.

When all the settings are configured just click apply to save.

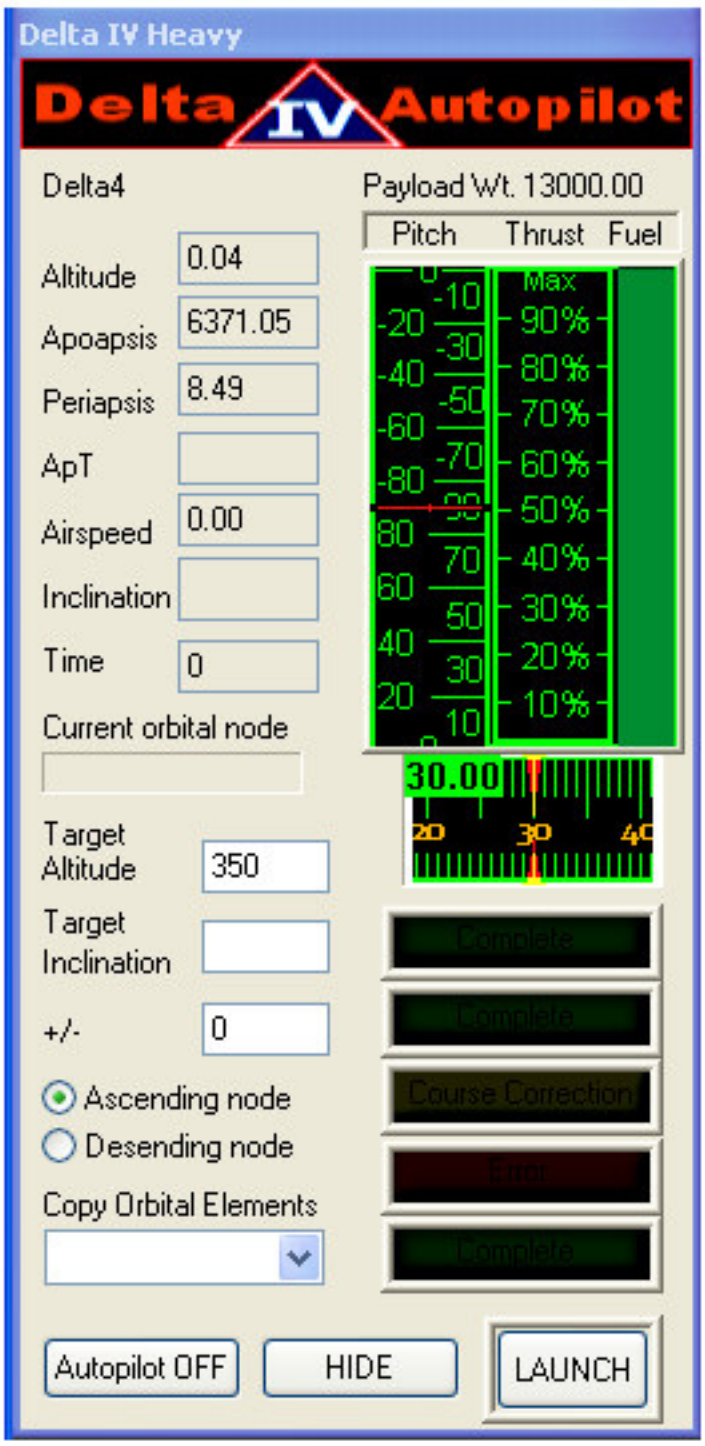
The visual adjustment button makes it easier to align custom payloads.

After clicking OK, the MeshZoffset is added to the MeshZoffset box.





Images are stored in the Orbiter/images/DeltaIV folder and should be 64pixels x 64pixels bitmap.The image named custom 1 represents the custom1 button etc..and should be changed to show an image of your custom payload.



Delta IV Autopilot....

Press A before launch to configure autopilot options.

In this window you can set the desired Altitude, inclination, and orbital node.
*See limitations at the end of this document.

Copy orbital Elements lets you automatically copy altitude and inclination of anything in earth orbit, but you can still enter this information manually.

Clicking hide hides this window and can be brought up at any time by clicking A while the vessel is the focus vessel.

You can now launch multiple vessels each with their own autopilot control window.

Autopilot will NOT work correctly if launching from any base other then SLC6 or LC37. If you do want to launch from another base, add the line Disable_Base_Animation 1 to the scn file, to disable the need to have slc6 or lc37 present.

When launching multiple vessels, be sure to use different payloads with each one to avoid having 2 vessels with the same name.

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Target Altitude should be set to 350 KM minimum.
Tested inclinations were between 40 and 60.
Other inclinations should work but I havent tested them.
The only tested orbits were prograde, so Im not sure if retrograde orbits will work.

After SECO , corrections will be made to achieve the desired inclination. A yellow "course correction" light indicates that course correction burns are pending. This will change to green when course corrections are completed. At which time it is safe to use time accelleration.

The final burn will take place some time after to increase periapsis to finalize the orbit. The "complete" light will indicate that autopilot has finished. The error light indicates 0.2 degrees inclination error and no error correction will be made. The +/- will give the amount of correction needed to get closer to the desired inclination and can be used the next time you launch to that inclination.

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Autopilot Limitations

Currently supported payload weights: Max altitude:

Delta IV medium 4 _____ 1000 km
Min 1000
MAX 3000

Delta IV medium 4,2 _____ 1000 km
Min 1000
MAX 3000

Delta IV medium 5,2 _____ 1000 km
Min 1000
MAX 4500

Delta IV medium 5,4 _____ 1000 km
Min 1000
MAX 6000

Delta IV Heavy _____ 1000 km
Min 1000
MAX 13000

Delta IV Heavy Plus _____ 1000 km
Min 8000
Max 15000

Keys

J = Jettison stages
F = Jets fairing
K = work satilite's solar panels
M = Mobile Service Tower / Config menu (before launch)
A= Autopilot

***** CUSTOM PAYLOAD *****
Can now be configured in the Menu by pressing M before launch

PAYLOAD sets payloads CFG file location
MESH sets payload mesh
Z_OFFSET sets the offset for the payload
PLDWEIGHT weight of payload
Fairing_attached 1 = true / 0 = false (used to launch the dg)

Credits :

Dr. Martin Schweiger for the awsome Orbiter space flight simulator.

Francisdrake for his Delta 4 Heavy Versatile Exhaust textures.

My wife , Kelly Harrington for allowing me to spend ALL my free time working on this project.

All the people who posted in the forum inspiring me to improve this addon.

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