

## Paramarine Tutorial 2

In this tutorial we will generate the internal subdivision of the FPSO. By internal subdivision we mean the generation of the transverse and longitudinal bulkheads, as well as the decks.

In the second part we will create the moonpool, in which the turret mooring system will be placed.

### Generate the internal subdivision

1. Under the design folder insert a geometry placeholder and name it planes
2. Under planes insert 3 geometry placeholders for decks, transverse and longitudinal bulkheads
3. For the generation of transverse bulkheads: insert – geometry definitions – frame generator
4. Go to *x\_locations*, right click - insert and select an object, either *a-b for\_next* for a set of bulkheads or *v* for defining each bulkhead separately (collision bulkhead, moonpool fwd, moonpool aft, etc.)
5. If you choose *a-b for\_next*, place the bulkheads either *by increments* or *by numbers*
6. Note that the origin is back near the aft perpendicular, but not at the aft perpendicular, and x is positive forward. If you set the location to the moon pool aft bulkhead location, the program fusses because it is trying to put two bulkheads in the same location
7. Click on the *frames* folder to see the result
8. Don't forget the classification rules: Collision Bulkhead is to be located between 0.05L or 10m aft of FP, whichever is less
9. To create the decks: insert – geometry definitions – plane – set  $z = 1$  and set distance d to the height of the deck. Repeat.
10. Same procedure for longitudinal bulkheads. Instead of  $z = 1$  set  $y = 1$

### Generate the moonpool

1. Insert – solid modeling – solid body
2. Go to *operations* and choose *cylinder*
3. Define 2 points, one should be the center of the bottom and the other the center of the top of the cylinder
4. Give the radius
5. Go to hull – operations - subtract – moonpool

**This is an alternative method to generate the double hull (double bottom and double sides at the same time). It is used to demonstrate the function of scaling.**

1. Make a new reference point with z the height of the double bottom
2. Copy paste the solid hull and rename it double hull
3. Go to operations – scale
4. Type i.e. 0.95 for x axis and 0.9 for y, z axis. This will make the double hull, 90% in beam and depth of the original size, and 95% in length.
5. Choose as the reference point the origin
6. Go to operations – move and choose from point *origin* to point *new origin*

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