AIAA CFD Drag Prediction Workshop
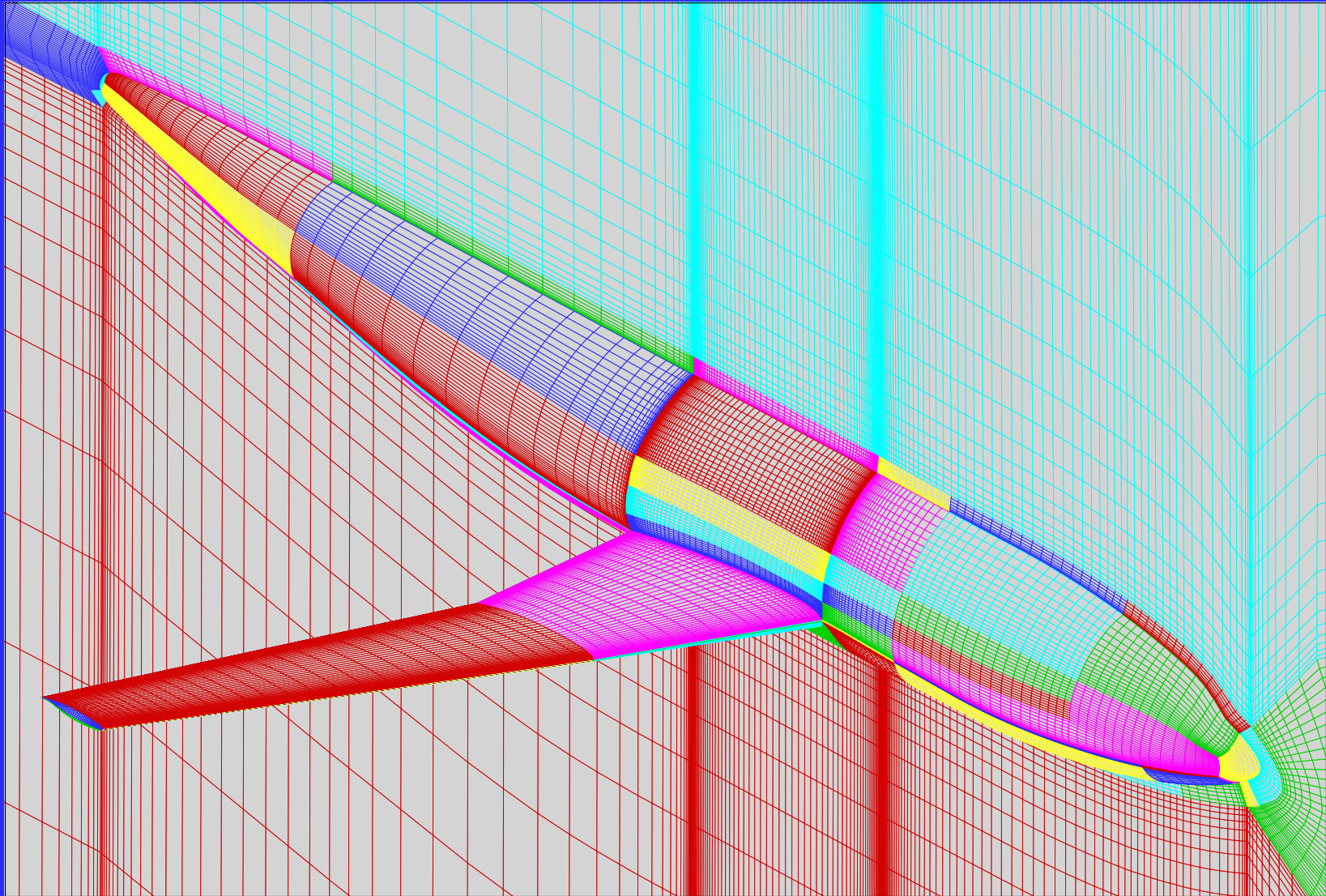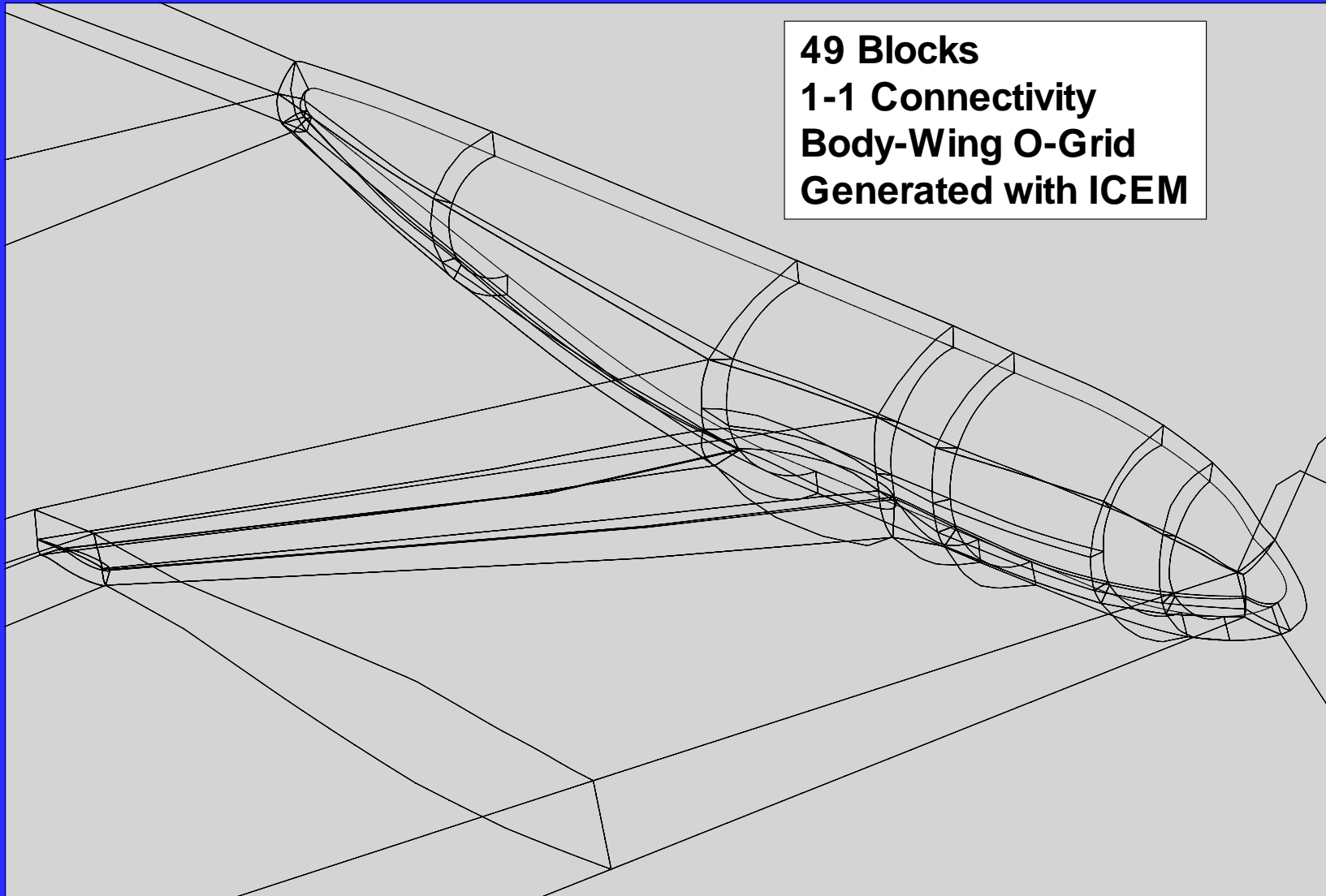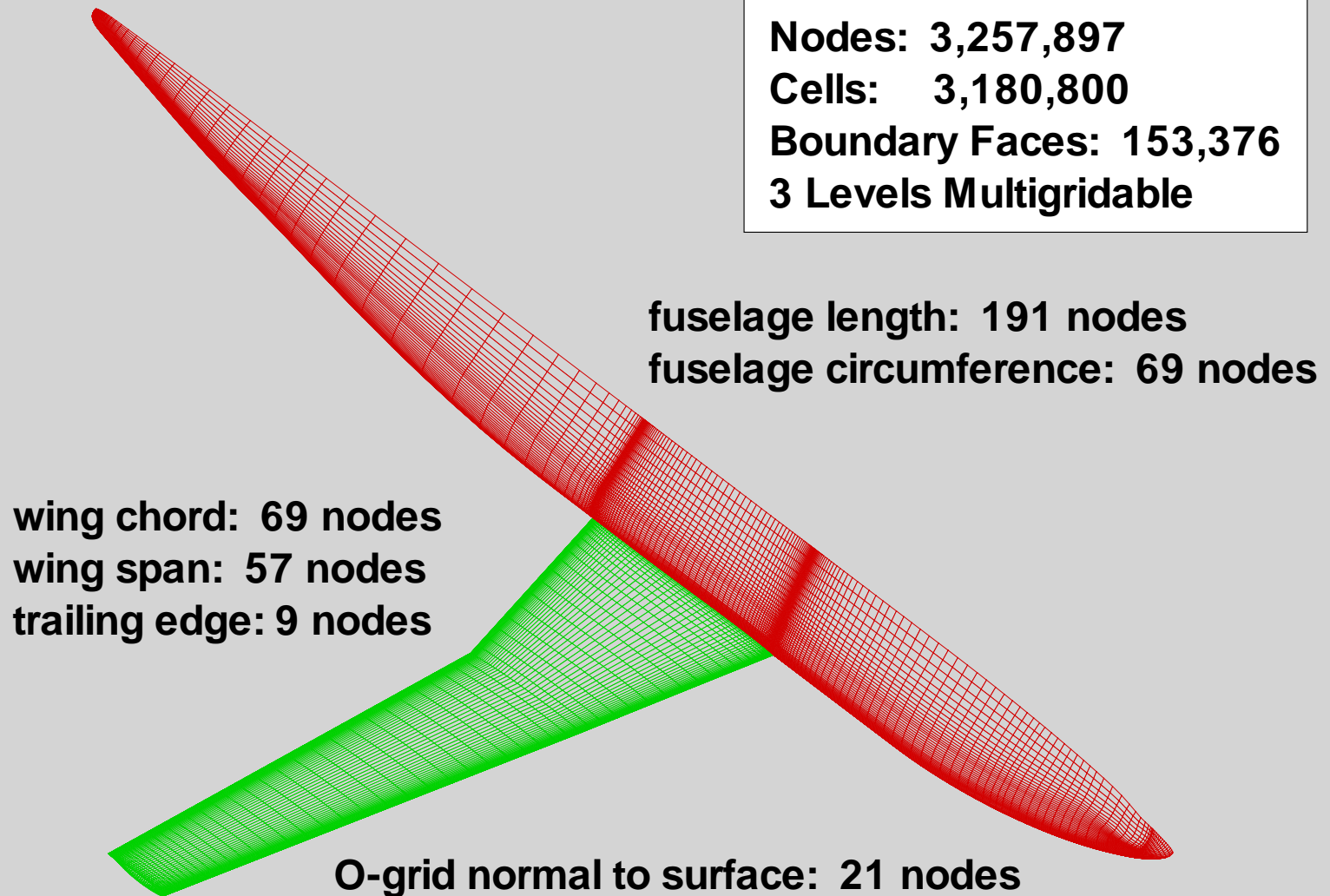## DLR-F4 Wing-Body Structured Multiblock Grid

DLR-F4 Wing-Body Structured Multiblock Grid Blocking Topology

49 Blocks
1-1 Connectivity
Body-Wing O-Grid
Generated with ICEM

DLR-F4 Wing-Body Structured Multiblock Grid Dimensions

Nodes: 3,257,897
Cells: 3,180,800
Boundary Faces: 153,376
3 Levels Multigridable

fuselage length: 191 nodes
fuselage circumference: 69 nodes

wing chord: 69 nodes
wing span: 57 nodes
trailing edge: 9 nodes
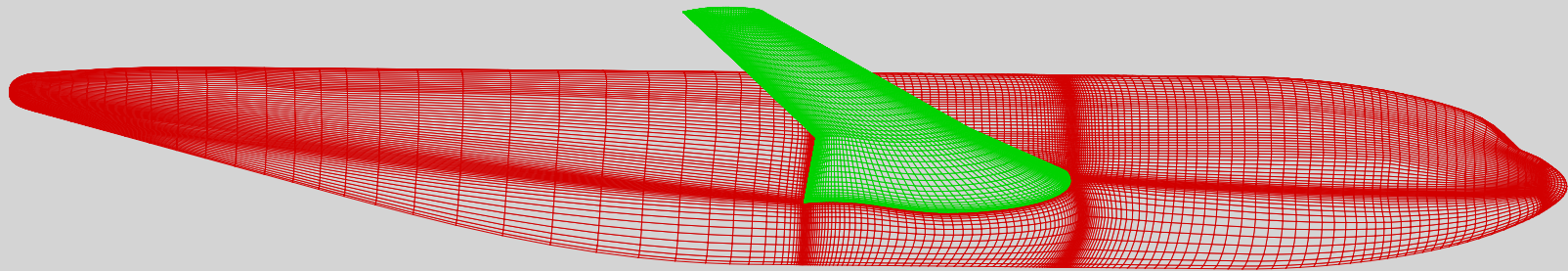
O-grid normal to surface: 21 nodes

DLR-F4 Wing-Body Structured Multiblock Grid Spacing

BL 1st-Cell Height:
max: 0.004 mm
min: 0.0005 mm

At Re = 3×10^6 ...
$y+_{max} = 3.0$
$y+_{min} = 0.025$
$y+_{ave} = 0.93 < 1.0$

Hyperbolic Spacing

Stretching Ratio:
1.1 - 1.3

wing spanwise spacing at ...
root : 1.0 mm = 0.007c
tip: 0.9 mm = 0.006c

wing chordwise spacing at ...
root LE: 0.32 mm = 0.002c
root TE: 0.38 mm = 0.003c
tip LE: 0.09 mm = 0.0006c
tip TE: 0.11 mm = 0.0008c