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

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 \times 10^6:**
- $y_{+\text{max}} = 3.0$
- $y_{+\text{min}} = 0.025$
- $y_{+\text{ave}} = 0.93 < 1.0$

**Hyperbolic Spacing**

**Stretching Ratio:**
- 1.1 - 1.3

**Wing Spanwise Spacing at Root:**
- root: 1.0 mm = 0.007c
- tip: 0.9 mm = 0.006c

**Wing Chordwise Spacing at Root:**
- 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