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The Cadence® Fidelity™ CFD suite of tools was used to generate a hybrid mesh, showcasing both surface-to-volume and volume-to-surface approaches. Fidelity™ Pointwise® was used to create a surface-to-volume mesh around the windmill rotating arms. The Flashpoint toolset was leveraged to quickly generate a quad-dominant surface mesh with little user input. A volume-to-surface mesh was created in Fidelity™/Hexpress for the remainder of the windmill. AutoSeal was used to rapidly create a watertight geometry (the closing surfaces are shown in pink). Then, minimal user inputs were required to create a hexahedral-dominant volume mesh with automatic curvature and proximity refinements. Both meshes include anisotropic boundary layers with an initial height consistent with a wind speed of 20 mph. The meshes were combined in the Fidelity™ environment and consist of 33M tetrahedra, 14M pyramids, 49M prisms, and 68M hexahedra for a combined total element count of 164M cells, or 97M nodes. Finally, a steady CFD simulation was run to obtain streamlines around the non-rotating mill.