

SOFTWARE UPGRADE ANOUNCEMENT

- Version 1.50 of the *CompAero* axial-flow and centrifugal compressor aerodynamic design and analysis software system was released for sale on June 20, 2009.
- Version 1.50 of the *TurbAero* axial-flow and radial-inflow turbine aerodynamic design and analysis software system was released for sale on June 20, 2009

SIGNIFICANT NEW FEATURES

- A new program (*VOLUTE*) has been developed and added to both software systems. It generates detailed passage geometry for centrifugal compressor and radial-inflow turbine volutes. It can treat elliptical or rectangular passage shapes and internal or external volutes. It includes interfaces with the preliminary aerodynamic design and performance analysis programs relevant to each system. Basically, it expands the fairly crude geometry specifications previously supplied, into full 360° passage geometry that is suitable for input to CAD/CAE systems. Several users have been encouraging this addition.
- *CompAero* program *BLADE* has been added to the *TurbAero* system (at the request of users who have found it useful for wind turbine blade design).
- A number of software bugs have been repaired in recent months. Some identified by various licensed users; others found during my own consulting activity.
- Graphical output in programs *GASPATH*, *BEZIER*, *RIGPAC* and *FLOW3D* has been substantially improved. Also several new options have been added to those programs to extend their capability when 2D radial-element or 2D axial-element blades are used. These enhancements were prompted by needs identified through my own recent consulting activity.

These cumulative upgrades have made it necessary to identify the software with new version numbers. That will provide essential information when I respond to software support requests. Users holding licenses issued by Flexware, Inc. should note that individual programs that require the Flexware hardlock security key for execution will carry a version number 2.50. Again, that provides essential identification information when I respond to software support requests.

SOFTWARE UPGRADE POLICIES

- Users holding direct-sale licenses can continue to order an upgraded installation CD from me for a fee equal to one hour of consulting at my normal consulting rate (currently \$100.00).
- Flexware, Inc. license holders should contact Flexware (sales@flexwareinc.com) for a quotation and to order an upgraded installation CD. The Flexware upgrade policy is quite similar, but also slightly different.

Ronald H. Aungier
July 13, 2009