

History Of *CompAero* And *TurbAero* Software Version Numbers

Since the *CompAero* and *TurbAero* software systems were first released for commercial sale, my policy has been to issue a minimum number of new version numbers. Too often commercial software suppliers issue new versions primarily as a means of generating additional income and often to entice clients into expensive maintenance agreements as a condition for obtaining upgrades. My practice has been to supply licensed users with basic software support at no charge and to supply upgrades for a minimal fee just sufficient to cover my cost of supplying them. I also supply individual program upgrades via email attachment at no charge (although I have encountered a couple of clients whose email system security is so restrictive that this is simply not possible).

New version numbers do serve some useful purposes. They provide specific identification that can be essential for me to properly respond to requests for software support. They also alert licensed users to software upgrades that I regard as either essential or as offering substantially improved capability.

Version numbers of the *CompAero* and *TurbAero* systems that have been issued to date are:

- **Version 1.0:** released for sale in March 2006.
- **Version 1.02:** released in July, 2006 to correct a significant equation-of-state error. Subsequently all licensed users as of that date received free upgrades.
- **Version 1.5:** released in June 2009 (Flexware, Inc. resale licenses designated version 2.5 for specific identification). This version included some additional programs and extensions of the software to several new applications and configurations not previously covered, most of which had been requested by various licensed users.
- **Version 2.0:** released in April 2011 (Flexware, Inc. resale licenses designated version 3.0 for specific identification). The primary motivation for this release was discovery of a remote possibility of an error in vapor saturation conditions and two-phase flow calculations for some fluids or fluid mixtures almost impossible to anticipate in advance. This required recompiling nearly all of the programs in both systems after removing the potential error.

Users having direct-sale licenses can continue to order upgrades from me for a fee equal to one hour of consulting at my normal consulting rate (currently \$100.00). Users having Flexware resale licenses should contact Flexware, Inc. (sales@flexwareinc.com) for a quotation and to order an upgraded. The Flexware upgrade policy is similar to mine, but also slightly different. I continue to maintain a dated update log on my web site to inform users of all software corrections and improvements as they are accomplished so that users can decide if they are significant to their specific applications.

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